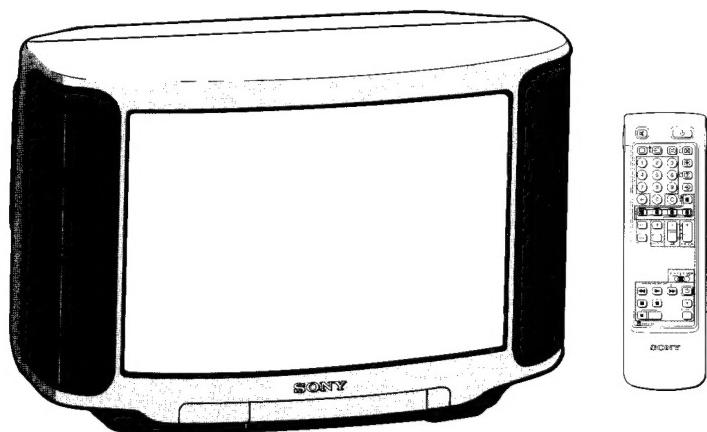


# SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-C2581A	RM-833	Italian	SCC-G81C-A	KV-C2581D	RM-833	AEP	SCC-G77D-A
KV-C2580B	RM-833	French	SCC-G85C-A	KV-C2583E	RM-833	Spanish	SCC-G82C-A



TRINITRON® COLOR TV  
**SONY®**



ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian	B/G/H	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, L, I	NICAM Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H,	NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	AEP	Italian	French	Spanish
Power Consumption	108W	108W	108W	108W

### SPECIFICATIONS

Picture Tube      Hi-Black Trinitron  
                         Approx. 63 cm (25 inches)  
                         (Approx. 59 cm picture measured  
                         diagonally)  
                         110° -deflection

#### Input/Output Terminals

##### [REAR]

- ⊖ 1 21-pin Euro connector (CENELEC standard)
- inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals
- ⊖ 2 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (selectable)

##### [FRONT]

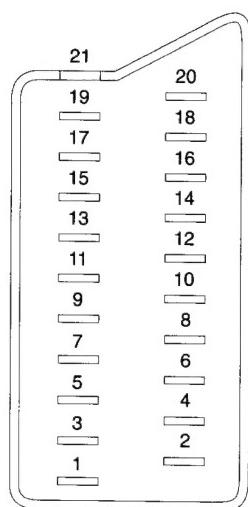
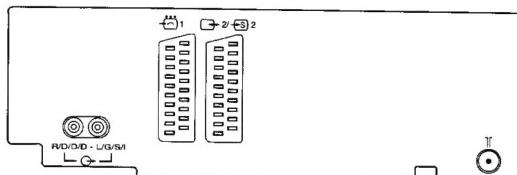
- ⊖ 3 Video input - phono jack
- ⊕ 3 Audio inputs - phono jacks
- ⊖ 3 S video input 4-pin DIN
- Ω Headphone jacks : stereo minijack
- Sound output            2 x 15W (Music power)
- Power requirements    220 - 240V
- Dimensions (WxHxD)    Approx. 720x497x480 mm
- Weight                   Approx. 35.5kg
- Supplied accessories   RM-833 Remote Commander (1)  
IEC designation R6 battery (1)
- Other features           NICAM , FASTEXT, TOPTEXT.

##### [RM-833]

- Remote control system   infrared control
- Power requirements    1.5V dc  
1 battery IEC designation  
R6 (size AA)
- Dimensions             Approx. 65x225x21 mm (w/h/d)
- Weight                   Approx. 157g (Not including batteries)

Design and specifications are subject to change without notice.

Item \ Model name	KV-C2581A	KV-C2580B	KV-C2581D	KV-C2583E
RGB Priority	ON	ON	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON
AKB in 16:9 mode	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON
Norm I	OFF	OFF	OFF	ON
Norm D/K	OFF	OFF	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF
Teletext	ON	OFF	ON	ON
Nicam Stereo	OFF	ON	OFF	ON
Language Preset	Italian	French	Deutsch	Spanish

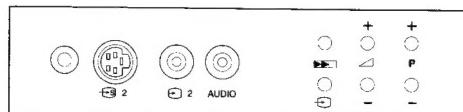
21 pin connector (  $\ominus$ -1  $\ominus$  2/ $\ominus$  4 )

Pin No.	1	2	4	Signal	Signal level
1	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Audio input B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Ground (audio)	
5	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Ground (blue)	
6	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	<input type="circle"/>	<input checked="" type="circle"/>	<input checked="" type="circle"/>	Blue input	$0.7 \pm 3\text{dB}$ , 75 ohms, positive
8	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Ground (green)	
10	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Open	
11	<input type="circle"/>	<input checked="" type="circle"/>	<input checked="" type="circle"/>	Green	Green signal : $0.7 \pm 3\text{dB}$ , 75 ohms, positive
12	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Open	
13	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Ground (red)	
14	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Ground (blanking)	
15	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Red input (S signal) croma input	$0.7 \pm 3\text{dB}$ , 75 ohms, positive $0.3 \pm 3\text{dB}$ , 75 ohms, positive
16	<input type="circle"/>	<input checked="" type="circle"/>	<input checked="" type="circle"/>	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75ohms
17	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Ground (video output)	
18	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Ground (video input)	
19	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Video output	$1V \pm 3\text{dB}$ , 75ohms, positive sync: $0.3V(-3+10\text{dB})$
20	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Video input Y (S signal)	$1V \pm 3\text{dB}$ , 75ohms, positive sync: $0.3V(-3+10\text{dB})$
21	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	Common ground (plug, shield)	$1V \pm 3\text{dB}$ , 75ohms, positive sync: $0.3V(-3+10\text{dB})$

 Connected Not Connected (open)

\* at 20Hz - 20kHz

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	$1V \pm 3\text{dB}$ 75 ohm , positive Sync. $0.3V -3/+10\text{ dB}$
4	C (S signal) input	$0.3V \pm 3\text{dB}$ 75 ohm , positive Sync.



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### CAUTION

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.**

**WARNING !!**

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD, DUE TO A LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

### SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLIMENTS PUBLISHED BY SONY.

### ATTENTION

**APRES AVOIR DECONNECTE LE CAP DE L'ANODE,  
COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE  
ET CELUI DE L'ANODE DU CAP AU CHASSIS  
METALLIQUE DE L'APPAREIL, OU AU COUCHE DE  
CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU  
BLINDAGE DU TUBE CATHODIQUE.**

### ATTENTION !!

**AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION  
PROVENANT D'UN CHÂSSIS SOUS TENSION, UN  
TRANSFORMATEUR D'ISOLEMENT DOIT ÊTRE UTILISÉ LORS  
DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST  
DIRECTEMENT RACCORDE À L'ALIMENTATION SECTEUR.**

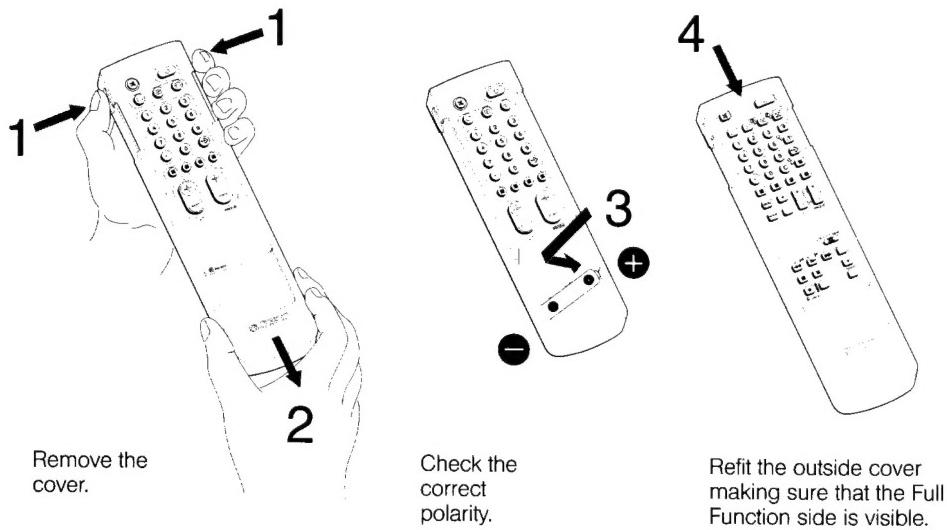
### ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ !!

**LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR  
UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES  
VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT  
D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU  
FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES  
COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST  
INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES  
SUPPLÉMENTS PUBLIÉS PAR SONY.**

## SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

## Getting Started

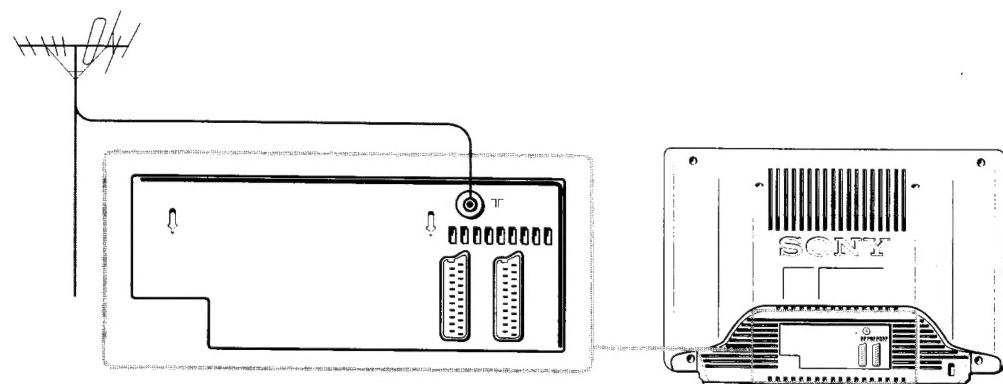


### About Battery Life

Under normal operation, a battery will last up to half a year.

## Connecting the Aerial

Connect the aerial to the **T** socket at the rear of the TV.  
(cable not supplied)



## Choosing a Language

(See inside of front cover and back cover)

### 1 Depress ① A on the TV.

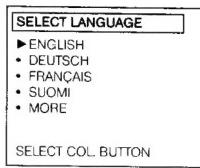
The TV turns on. If the standby indicator **E** on the TV is lit, press **□** ③ or any number button ④ on the Remote Commander.

### 2 Press MENU ⑦ on the Remote Commander.

The SELECT LANGUAGE screen appears.

### 3 Press one of the colour buttons ⑨ on the Remote Commander to select a language (Press the white button ⑩ to display other language alternatives).

The SELECT LANGUAGE screen clears and all subsequent menus appear in the chosen language.



**Note:** From the second time when you turn on the TV, the MENU screen appears instead of the SELECT LANGUAGE screen. Press the yellow button ⑪ then press the white button ⑫ to redisplay the SELECT LANGUAGE screen.

## Tuning in to Channels

You can tune in up to 60 channels to programme positions either automatically or manually.

auto tuning:

A single button press allows all receivable channels to be tuned. Use if you are unfamiliar with the channel numbers of stations.

manual tuning:

Use if you are familiar with the channel numbers of stations.

Choose the more appropriate way for you.

### Tuning in to Channels Automatically

There are two possibilities for auto tuning:

- On the TV: hold down **□** **E** on the front of the TV for 2 seconds

Note: The button **□** for Automatic Presetting of channels is protected to prevent accidental usage. Use a pencil to press it.  
or

- On the Remote Commander: as follows

### 1 Press MENU ⑦.

### 2 Press the white button ⑩.

### 3 Hold down the red button ⑪ for 2 seconds.

**Note:** Press the green button ⑫ to cancel.

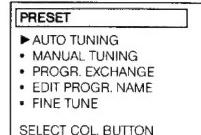
### Tuning in to Channels Manually

#### 1 Press MENU ⑦.

The MENU screen appears. **[MENU]**

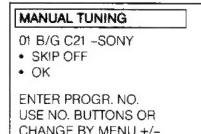
#### 2 Press the white button ⑩ to select PRESET.

The PRESET screen appears.



#### 3 Press the green button ⑫ to select MANUAL TUNING.

The MANUAL TUNING screen appears.



**4 Press the number buttons ④ or MENU +/- ⑨ to select a programme position.**

If you use the number buttons ④, enter a double-digit number. (e.g. for programme number 4, first press 0, then 4)

**5 Press the green button ⑦.**

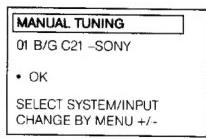
**Note:** Use MENU +/- ⑨

to select TV system.

You can alternatively select input sources which may be assigned to programme positions.

The display changes as follows:

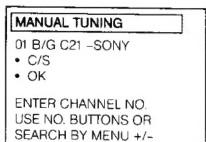
B/G → D/K → AV1 → RGB → AV2 → YC2 → AV3 → YC3



**6 Press the green button ⑦.**

**Note:** If a video input source is selected in step 5, this is now stored.

Refer to step 4 to tune other programme positions.



**7 If you have selected B/G in step 5, press the red button ⑦ to select C (regular channel) or S (cable channel).**

**8 Press the number buttons ④ or MENU +/- ⑨ to select the channel number.**

If you use the number buttons ④, enter a double-digit number. (e.g. for channel 23, first press 2, then 3)

**9 Press the green button ⑦ to store.**

**Note:** If you want to preset other channels, repeat steps 4 to 9.

**10 Press MENU ⑦ twice to return to the normal screen.**

**Note:** You can skip unused programme positions when selecting programmes with the PROGR +/- buttons ⑩.

Press the red button ⑦ to skip in step 4. However, the skipped programmes may still be called up when you use the number buttons.

## Basic TV Operations

### Turning the TV on and off

#### Turning on

Depress ① A on the TV.

#### Turning off temporarily

Press ⑩ on the Remote Commander.

The TV enters standby mode and the standby indicator B on the front of the TV lights up.

#### Turning on again

Press ② ③, PROGR +/- ⑩, or one of the number buttons ④ on the Remote Commander.

#### Turning off completely

Depress ① A on the TV.

**Note:** It is recommended to use ① A to turn off the TV. This could help you save energy.

### Selecting TV Programmes

Press PROGR +/- ⑩ or press the number buttons ④.

#### To select a double-digit number

Press ⑧ ⑨, then the number buttons ④.

### Adjusting the Volume

Press ⑤ +/- ⑩.

### Muting the Sound

Press ⑥ ①

To resume normal sound, press ⑥ ① again.

### Displaying the On-screen Indications

Press ⑩ once to display the on-screen indications.

Press again to make the indications disappear.

### Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can adjust or select the functions as follows:

Press ⑤ +/- ⑩ to adjust the volume.

Press P +/- ⑩ to select programme numbers or to turn the TV on from the standby mode.

Press ⑨ ⑩ to select the input source.

Press ⑧ ⑩ to preset channels automatically.

# Advanced TV Operations

## Operating the Menu System

You can adjust picture and sound, preset channels to programme positions and utilise other convenient features by using the following menu system.

Press:	to:
1 MENU ⑦	enter the MENU screen
2 a colour button ⑦	select an item you want to change (The selected item is marked by a triangle.)
3 MENU +/- ⑨	change (or adjust) the contents of the item
4 MENU ⑦	return to the MENU screen
5 MENU ⑦ again	return to the normal screen
Press MENU ⑦ once or twice whenever you want to return to the normal screen.	

**Note:** When selecting menus, the picture becomes darker. If, however, an item in the PICTURE ADJUSTMENT menu is selected, normal level of TV picture is restored to allow the best adjustment.

## Adjusting the Picture and Sound

Although picture and sound are adjusted at the factory you can adjust them to suit your own taste.

1 Press MENU ⑦.  
The MENU screen appears. 

2 Press the red button ⑦ to select PICTURE or the green button ⑦ to select SOUND.

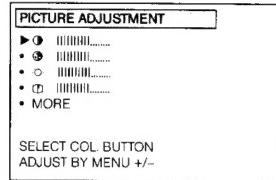
3 Press the respective colour button ⑦ to select an item.

4 Press MENU +/- ⑨ to adjust.

5 Press MENU ⑦ twice or wait until the menu displays disappear automatically to return to the normal screen.

### PICTURE ADJUSTMENT

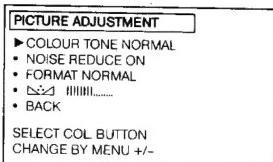
(First Page)



Press colour button	Effect
<b>Red:</b> For Picture ①	Less — More
<b>Green:</b> For Colour ③	Less — More
<b>Yellow:</b> For Brightness ⑤	Darker — Brighter
<b>Blue:</b> For Sharpness ⑩	Softer — Sharper
<b>White:</b>	Next page of PICTURE ADJUSTMENT

## PICTURE ADJUSTMENT

(Second Page)

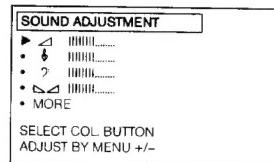


Press colour button	Effect
<b>Red:</b> For Colour Tone	Normal $\Rightarrow$ Warm (reddish colour tone) $\Rightarrow$ Cool (blueish colour tone)
<b>Green:</b> For Noise Reduce	ON: Reduces picture noise (in case of low signal level) OFF: Normal setting
<b>Yellow:</b> For Format	Normal: Normal setting 16:9 Wide screen effect
<b>Blue:</b> For Hue control  (only for NTSC video signals)	Reddish $\rightarrow$ Greenish
<b>White:</b>	Back to first page of PICTURE ADJUSTMENT

**Note:** Press  $\rightarrow\leftarrow$  ⑥ on the Remote Commander to reset to the factory preset levels for picture and sound.

## SOUND ADJUSTMENT

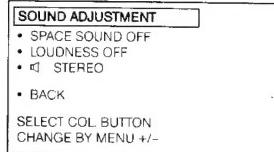
(First Page)



Press colour button	Effect
<b>Red:</b> For Volume	Less $\rightarrow$ More
<b>Green:</b> For Treble	Less $\rightarrow$ More
<b>Yellow:</b> For Bass	Less $\rightarrow$ More
<b>Blue:</b> For Balance	More left – more right
<b>White:</b>	Next page of SOUND ADJUSTMENT

## SOUND ADJUSTMENT

(Second Page)



Press colour button	Effect
<b>Red:</b> For Space Sound	OFF: normal sound ON: for a special acoustic sound effect
<b>Green:</b> For Loudness	OFF: normal sound ON: when listening to music broadcast
<b>Yellow:</b> For Stereo	Stereo $\Rightarrow$ Mono A (left channel) $\Rightarrow$ Mono B (right channel) $\Rightarrow$ Mono
<b>White:</b>	Back to first page of SOUND ADJUSTMENT

**Note:** Press  $\rightarrow\leftarrow$  ⑥ on the Remote Commander to reset to the factory preset levels for picture and sound.

## Using Special Features

With your TV you can utilise special features such as Parental Lock or Sleep Timer.

**1 Press MENU ⑦.**

The MENU screen appears. 

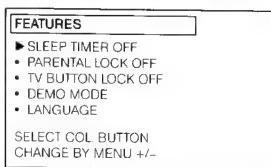
**2 Press the yellow button ⑦ to select FEATURES.**

**3 Press the respective colour button ⑦ to select an item.**

**4 Press MENU +/- ⑨ to change.**

**5 Press MENU ⑦ twice or wait until the menu displays disappear automatically to return to the normal screen.**

### FEATURES



**Press colour button**

**Effect**

**Red:**

For Sleep Timer  
(Automatic switch off function)

OFF  $\Rightarrow$  0:30  $\Rightarrow$  1:00  $\Rightarrow$  1:30  $\Rightarrow$  2:00 (hours)  
After the selected time the TV set switches itself automatically into standby mode.

**Green:**

For Parental Lock  
(For preventing children from watching programmes which you consider unsuitable)

OFF: Normal setting  
ON: The TV-channel you are watching is now blocked.  
In this way you can prevent undesirable broadcasts from appearing on the screen.

**Yellow**

For TV Button Lock

OFF: Normal setting  
ON: The buttons on the TV do not function anymore.  
(The Remote Commander still operates)

**Blue:**

For Demo Mode

ON: A sequence of menu pictures is displayed.  
Press any button on the Remote Commander to stop the function.

**White:**

For Language

The SELECT LANGUAGE screen appears.

## Advanced Presetting Functions

### Exchanging Programme Positions

You can exchange the programme positions to a preferred order (example: exchange programme 09 (channel C21) with programme 15 (channel C24)).

**1 Press MENU ⑦.**

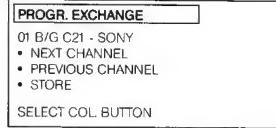
The MENU screen appears. 

**2 Press the white button ⑦.**

The PRESET screen appears.

**3 Press the yellow button ⑦.**

The PROGR. EXCHANGE screen appears.



**4 Press the white button ⑦ repeatedly until the desired programme number (09) appears.**

**5 Press the red or the green button ⑦ repeatedly until the desired channel number (C24) appears.**

**6 Press the white button ⑦ to store.**

Now exchange has been completed. Channel C24 is tuned in to programme 09 and channel C21 is tuned in to programme 15.

**7 Press MENU ⑦ twice to return to the normal screen.**

### Editing Programme Names

You can edit the programme names up to five letters.

**1 Press MENU ⑦.**

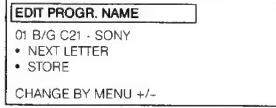
The MENU screen appears. 

**2 Press the white button ⑦.**

The PRESET screen appears.

**3 Press the blue button ⑦.**

The EDIT PROGR. NAME screen appears.  
The first character flashes.



---

**4 Press MENU +/- ⑨ to edit the first letter.**

The first letter changes as follows  
A ↔ B ↔ ... ↔ Z ↔ 1 ↔ ... 9 ↔ “-” (space).



---

**5 Press the red button ⑯ to move to the next letter.**

---

**6 Repeat steps 4 to 5, until the fifth letter is chosen.**

---

**7 Press the green button ⑰.**

The programme name is stored, and the normal screen appears. To edit another programme name, repeat steps 1 to 7.

---

**Fine Tuning**

You can adjust the receiving conditions by the FINE TUNE function.

---

**1 Press MENU ⑦**

The MENU screen appears.

---

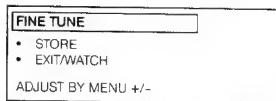
**2 Press the white button ⑮.**

The PRESET screen appears.

---

**3 Press the white button ⑮ again.**

The FINE TUNE screen appears.



---

**4 Press MENU +/- ⑨ to adjust the receiving condition.**

---

**5 Press the red button ⑯ to store the adjustment, or press the green button ⑰ not to store.**

Now the normal screen appears. If you have pressed the green button, the fine tuned condition is cancelled once you choose another programme.

**Note:** If the FINE TUNE screen disappears automatically before you press the red button ⑯, the fine tuned condition is not stored. Repeat steps 1 to 5.

**Tuning in to a Channel Temporarily**

You can tune in to a channel temporarily, even when it has not been preset.

---

**1 Press C ⑩ on the Remote Commander.**

For cable channels press C ⑩ twice. The indication "C" (or "S" for cable channels) appears on the screen.

---

**2 Enter a double digit channel number using the number buttons (e.g. for channel 23, first press 2, then 3).**

The channel appears.

However, the channel is not stored.

# Teletext Operation

TV stations broadcast teletext programmes via the TV channels. For basic operation of teletext, use the simple side of the Remote Commander. For the advanced features of teletext, use the buttons indicated in green on the full function side of the Remote Commander.

## Basic Teletext Operation

### Switching Teletext on and off

**1 Select the channel which carries the teletext service you wish to view.**

**2 Press ⑩ to display Teletext.**

If no teletext signal is broadcast, the indication P100 is displayed on a black screen.



**3 Input three digits for the page number using the number buttons ④.**

The numbers are displayed on the screen and the requested page appears in a few seconds.

**Note:** If you make a mistake, type in any three digits, then re-enter the correct page number.

**4 Press ③ to return to the TV mode.**

#### Notes:

- To change the teletext channels. First press ③ to return to the TV mode, then repeat steps 1 to 3.
- If the signal of a TV channel is weak, teletext errors may occur.

## Advanced Teletext Operation

### Using Fastext

With Fastext you can access pages with one button press. When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons ⑥ on the Remote Commander.

Press the corresponding colour button ⑥ on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed in a few seconds.

### Requesting the Index page

Press ⑦. The Index page appears.

### Accessing the next or preceding page

Press or ⑩. The next or the preceding page appears on the screen.

### Superimposing the teletext display on the TV picture

Press ⑪ once if you are in text mode or press ⑪ twice if in TV mode.

To return to the normal teletext display press ⑪ again.



### Preventing a teletext page from being updated or changed

Press (HOLD) ②. The HOLD symbol () appears on the screen and the selected subpage is held until you press ⑪ to cancel.

### Enlarging the teletext display

Press ⑬ once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.



### Revealing concealed information (e.g. answers to a quiz)

Press (REVEAL) ⑭. The information is revealed. Press ⑯ again to conceal the information.

### Watching TV while waiting for a requested page to be displayed

**1 Request a new teletext page.**

**2 Press (TEXT CL) ⑫.**

The TV programme is displayed and the symbol is displayed at the top of the page.

**Note:** When the requested page is available the page number is displayed at the top of the screen.

**3 Press ⑩ to view the page.**

### To cancel the request

Display the teletext page, then press ⑪. The request is now cancelled. Press ③ to resume TV mode.

### Using the Favourite Page system

You can store up to four of your favourite teletext pages per programme with the help of the Favourite page system. In this way you have quick access to the pages you watch frequently.

### Storing the Favourite Pages

**1 Select the page you would like to store using the number buttons ④.**

**2 Press ⑯ twice.**

The colour prompts at the bottom of the screen flash.

**3 Press any of the colour buttons ⑥ on the Remote Commander to store the selected page.**

The page is now stored on this button.

Repeat steps 1 to 3 for the other 3 pages available.

### Displaying the Favourite pages

**1 Press ⑯.**

**2 Press the colour button ⑥ corresponding to the colour prompt onto which the desired page is stored.**

The page is requested. (It may take a few seconds to be received).

**Note:** Step 1 must be taken before every favourite page selection otherwise the normal Fastext facility operates.

### Using the Time Function in the TV mode

Press ⑫ to request the time. Press again to cancel the request.

**Note:** This function is available only when teletext is broadcast.

## Connecting Other Equipment

You can connect optional audio/video equipment to this TV such as VCRs, video disc players, cameras or stereo systems.

Connector	Acceptable input signal	Available output signal
1 M (AV1/RGB)	Audio/video and RGB signal	Audio/video signal from TV Tuner
2 L (AV2/YC2)	Audio/video and S-video signal	Audio/video signal from selected source
3 H (AV3)	Audio/video signal	No outputs
3 I (YC3)	Audio/S-video signal	No outputs

To watch a video input picture, press **2** until the desired video input appears.

To return to the normal TV picture, press **2** repeatedly or press **3**.

If you have a decoder, connect it to **1 M**.

### Connecting a VCR Using the TV Aerial Terminal

Connect the aerial output of the VCR to the aerial terminal **K** of the TV. It is recommended to tune in the VCR signal to programme number "0". For details, see "Tuning in to Channels Manually" on page 20.

#### S video input (Y/C input) **L**.

Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.

Separating the Y and C signals prevents them from interfering with each other and therefore improves the picture quality (especially luminance). This TV is equipped with 2 video input terminals through which these signals can be input directly.

## Checking and Selecting the Input and Output Sources Using the Menu

You can display a menu screen to see which input and output source are selected. You can also change the selecting using this menu.

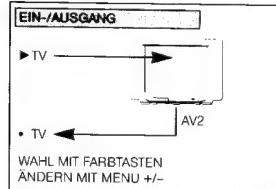
### Checking the Input and Output Sources

#### 1 Press MENU **7**.

The MENU screen appears.

#### 2 Press the blue button **1** to select INPUT/OUTPUT.

The INPUT/OUTPUT screen appears.



## Selecting an Input Signal

Press the red button **17** to select INPUT. Press MENU +/- **9** to select the desired input source.

You can select among the following sources:

TV ↔ AV1 ↔ RGB ↔ AV2 ↔ YC2 ↔ AV3 ↔ YC3

## Selecting an Output Signal

The **2** connector **L** outputs the source input from the other connectors. Press the green button **17** to select OUTPUT. Press MENU +/- **9** to select the desired output source.

You can select among the following sources:

TV ↔ AV1 ↔ AV2 ↔ YC2 ↔ AV3 ↔ YC3

**Note:** Press **7** twice or wait until the menu display disappears automatically to return to the normal screen.

## Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8 mm or VHS VCRs or video disc players.

### Tuning the Remote Commander to the equipment

#### 1 Set the VTR 1/2/3 MDP selector **20** according to the equipment you want to control:

VTR 1: Beta or VCR

VTR 2: 8mm VCR

VTR 3: VHS VCR

MDP: Video Disc Player

#### 2 Use the buttons **21** to operate the additional equipment.

#### Notes:

- If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MCP selector on the TV Remote Commander.
- If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate
- When you use the **●** (record) button, make sure to press this button and the one to the right of it simultaneously.

## Using Headphones

You can utilise headphones. Connect them to the headphone jack **J**, then the sound from the speakers goes off.

**Note:** You can't control the sound adjustment except for volume.

## For your Information

### Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

#### No picture (screen is dark), no sound

- Plug the TV in.
- Press ① A on the TV. (If the standby indicator B is lit, press □ ③ or any number button ④ on the Remote Commander.)
- Check if the selected video source is on.
- Turn the TV off for three or four seconds and then turn it on again using ① A.

#### Poor or no picture (screen is dark), but good sound

- Press MENU ⑦ to enter the MENU screen, and press the red button ⑯, then adjust ⑩ and ⑪.

#### Good picture but no sound

- Press  $\triangle + ⑯$ .
- If  $\text{VOL}$  is displayed on the screen, press  $\text{VOL} + ⑯$ .

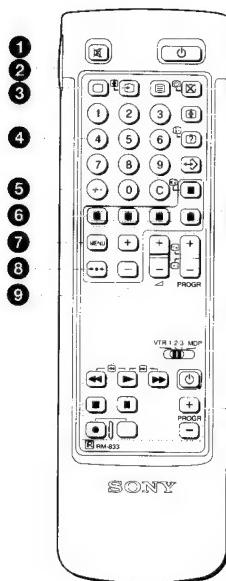
#### No colour for colour programmes

- Press MENU ⑦ to enter the MENU screen, and press the red button ⑯, then adjust ⑩.

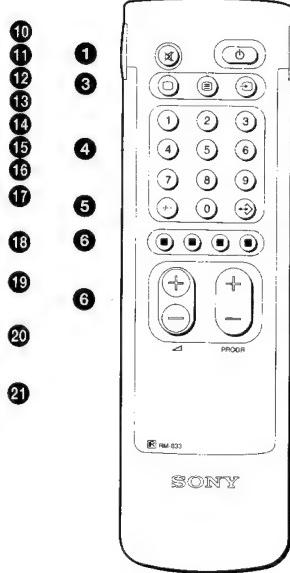
#### Remote Commander does not function

- Replace the battery.

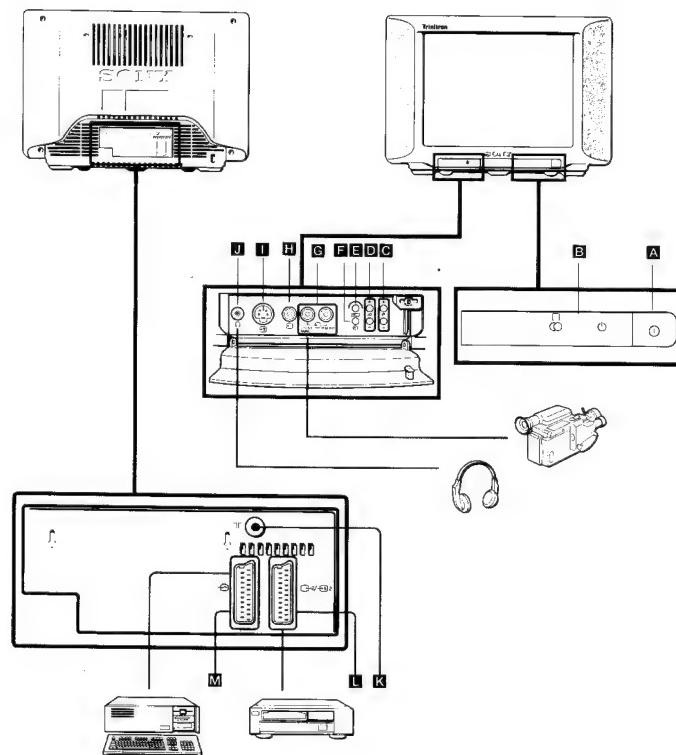
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.



Vollständige Seite  
Full-Function Side

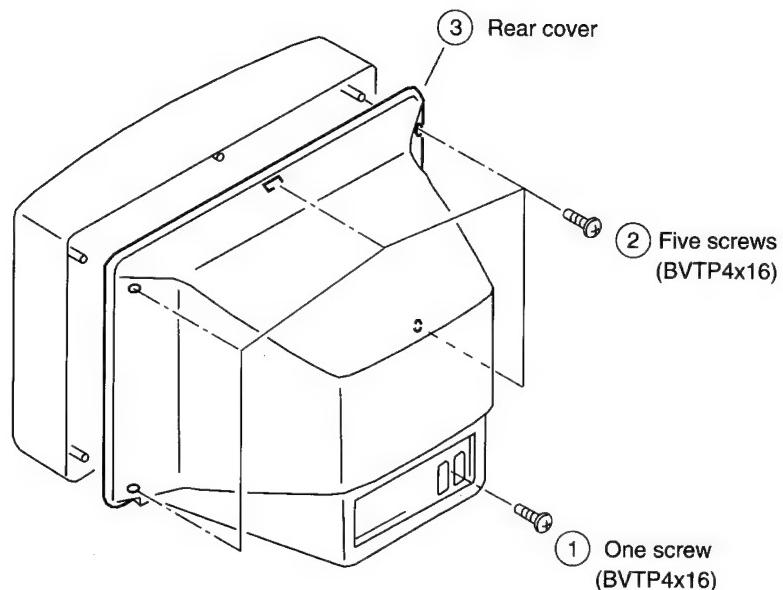


Vereinfachte Seite  
Simple Side

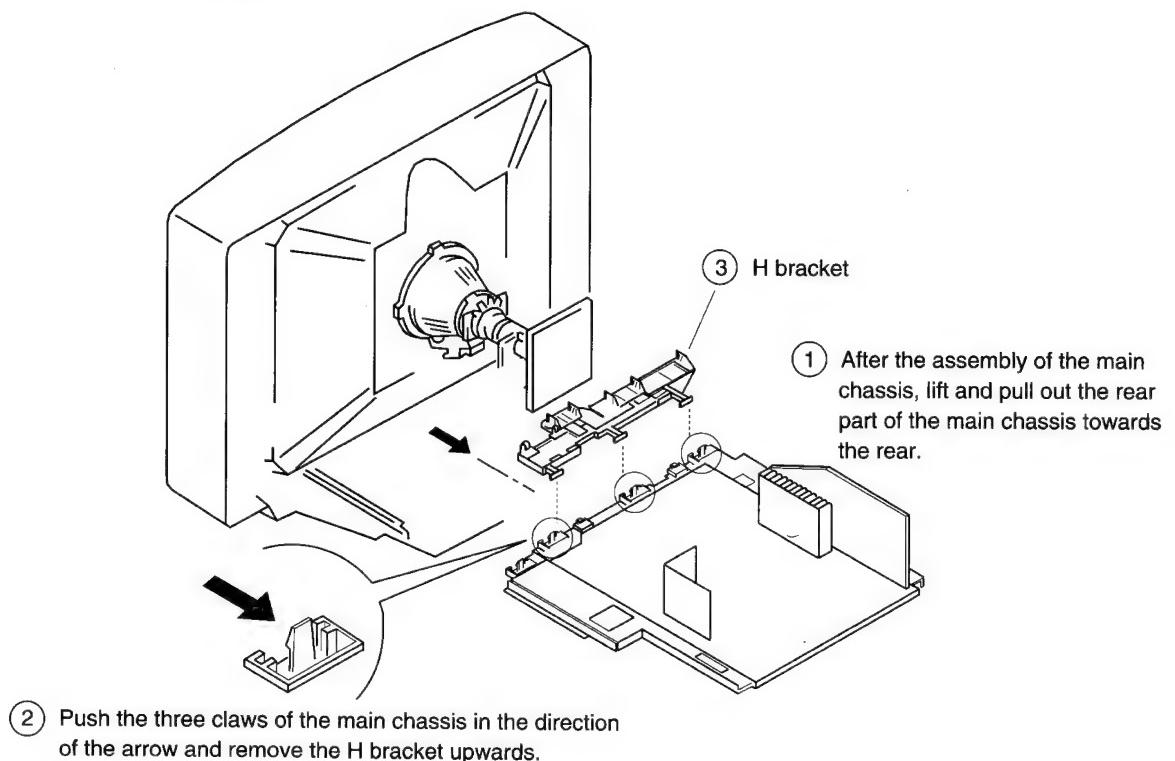


## SECTION 2 DISASSEMBLY

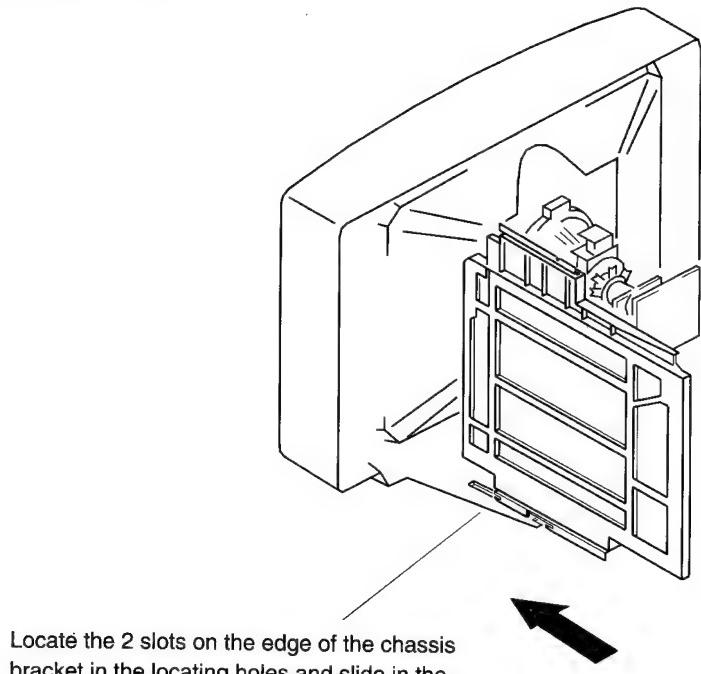
### 2-1. REAR COVER REMOVAL



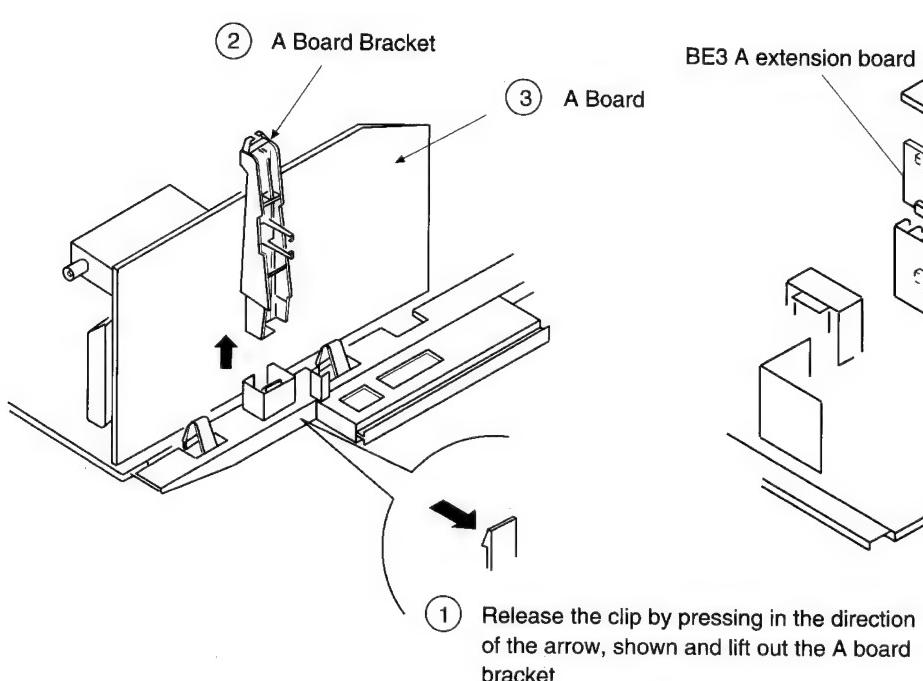
### 2-2. CHASSIS ASSY REMOVAL



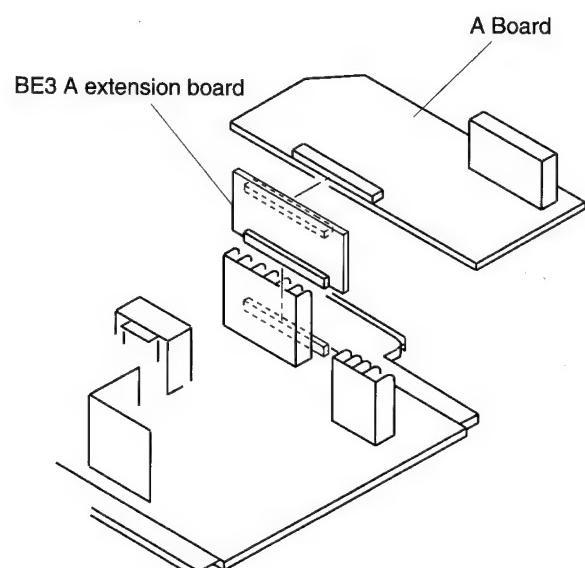
### 2-3. SERVICE POSITION



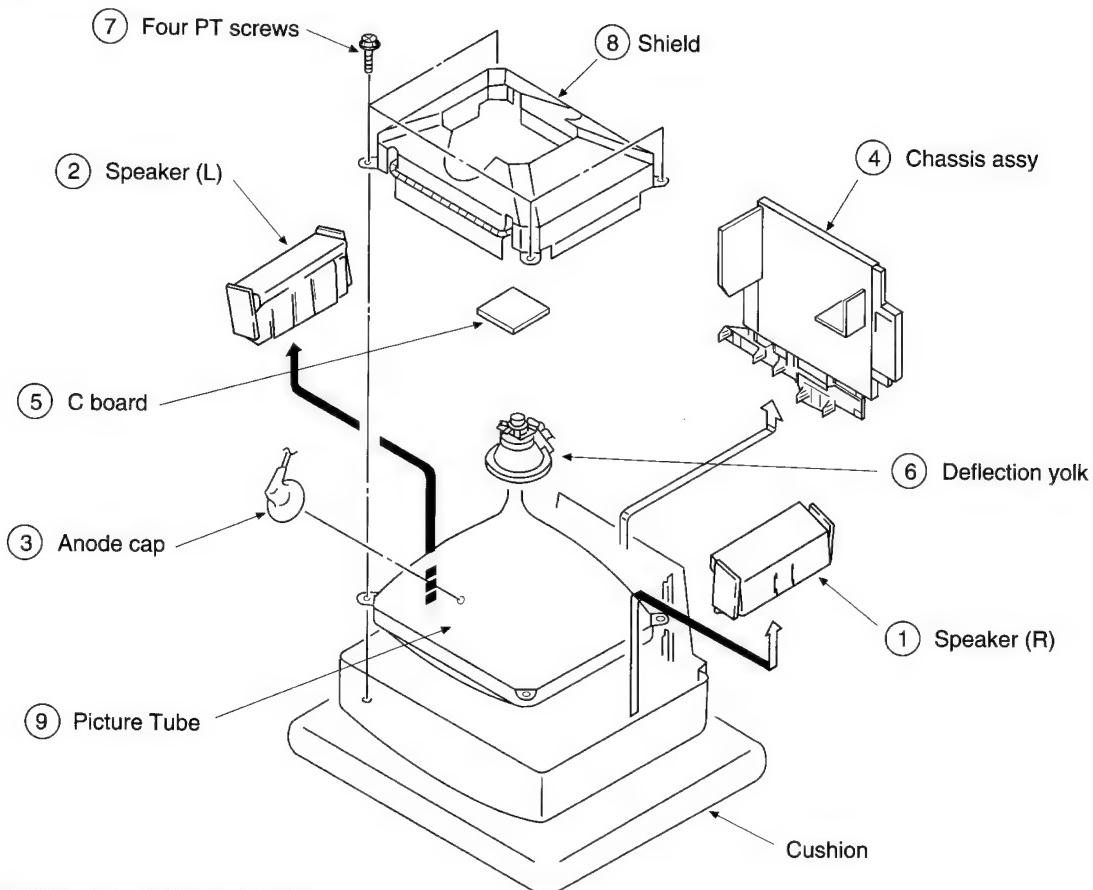
### 2-4. A BOARD REMOVAL



### 2-5. EXTENSION BOARD



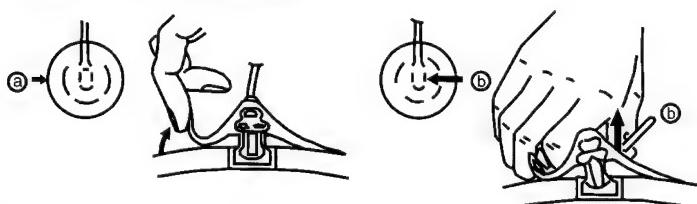
## 2-6. PICTURE TUBE REMOVAL



### • REMOVAL OF ANODE-CAP

**Note:** Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

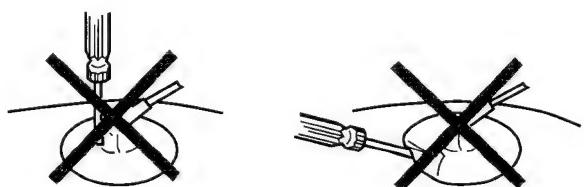
#### \* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow ①
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ③

#### • HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !  
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !  
The shatter-hook terminal will stick out or damage the rubber.



## SECTION 3

### SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

● Contrast ..... 80% (or remote control normal)

★ Brightness ..... 50%

- Carry out the following adjustments in this order :
- Beam landing
  - Convergence
  - Focus
  - White balance

**Note:** Testing equipment required.

- Color bar/pattern generator
- Degausser
- DC power supply
- Digital multimeter
- Oscilloscope

#### Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

#### 3-1. BEAM LANDING

- Input the white signal with the pattern generator.  
CONTRAST } normal  
BRIGHTNESS }
- Position neck assy as shown in Fig.3-2.
- Set the pattern generator raster signal to red.
- Move the deflection yoke forward and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
- Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
- Switch the raster signal to blue, then to green and verify the condition.
- When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

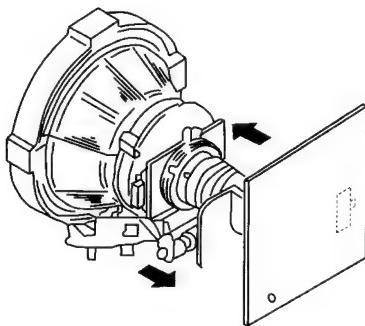


Fig. 3-1

Fig. 3-2

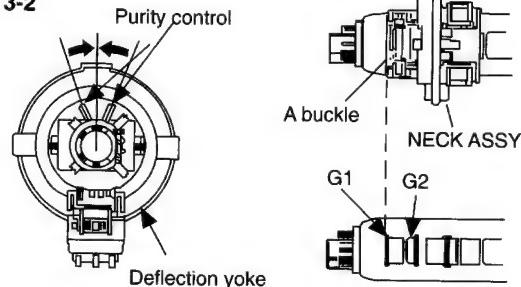
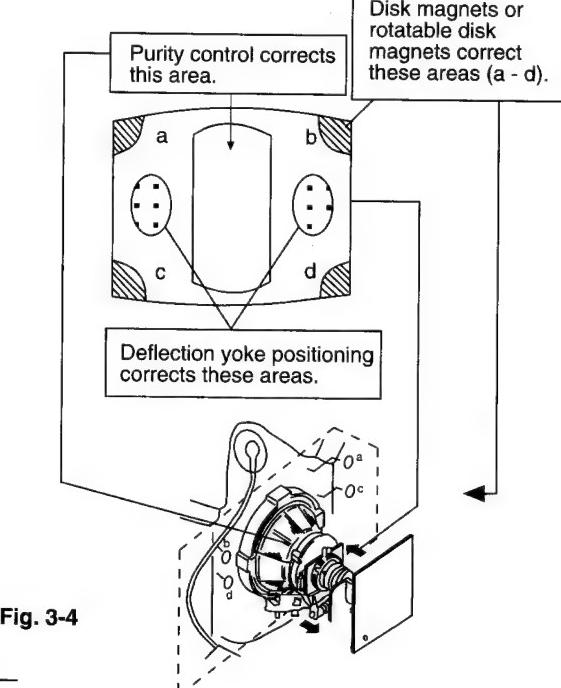
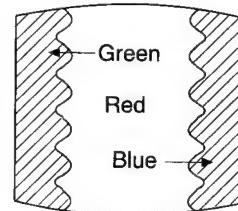


Fig. 3-3

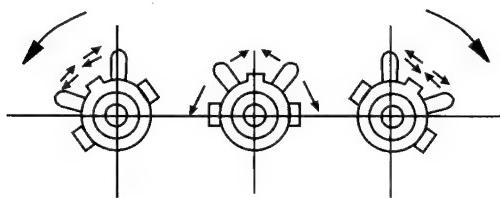


### 3-2. CONVERGENCE

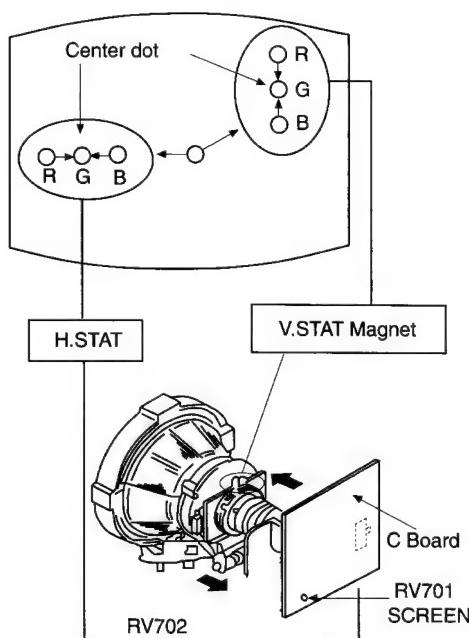
#### Preparation:

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

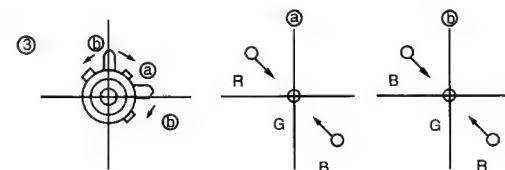
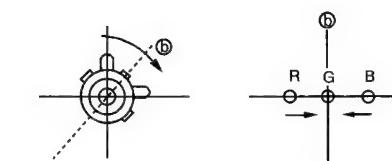
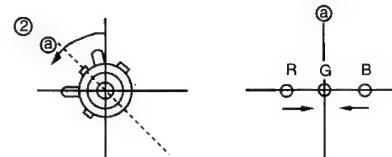
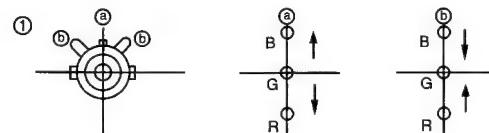


#### (1) Horizontal and vertical static convergence

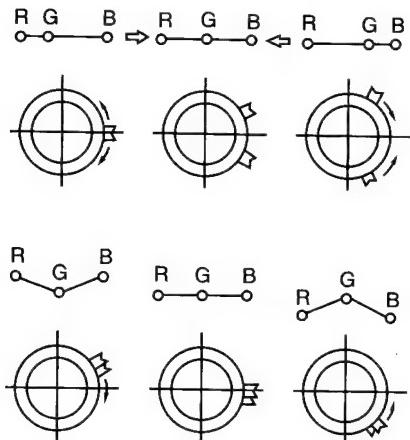


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.  
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

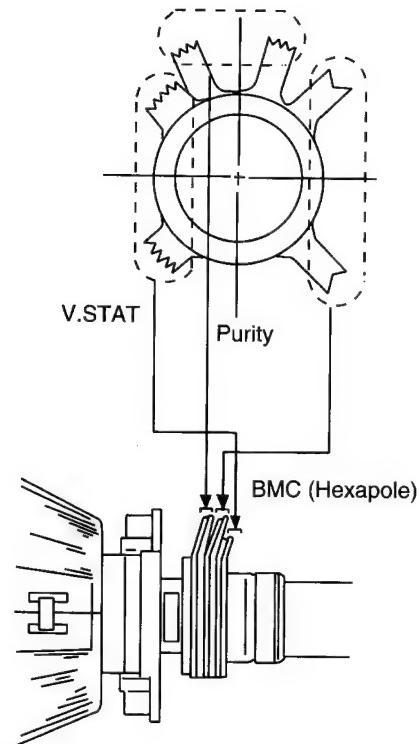
4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.  
Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of the screen (by moving the dots in the horizontal direction).

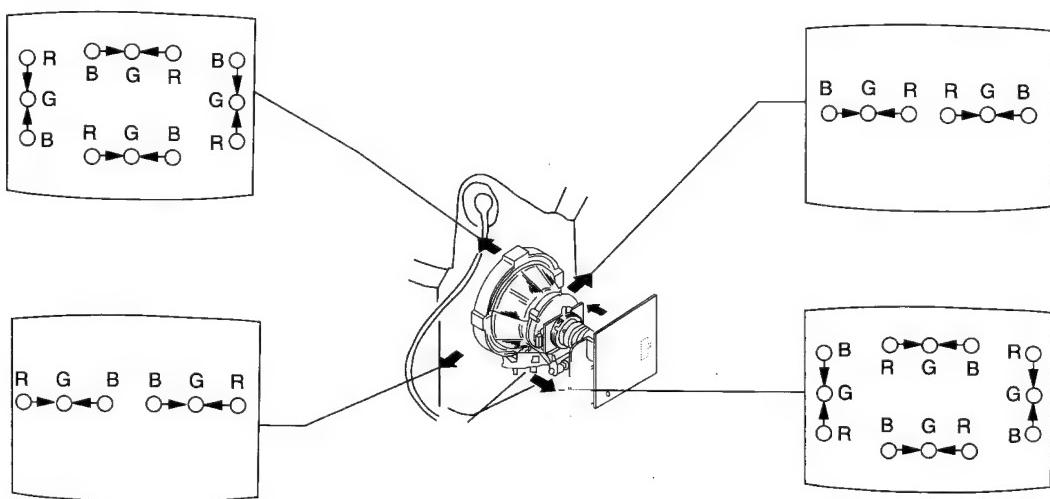


## (2) Dynamic convergence adjustment.

### Preparation:

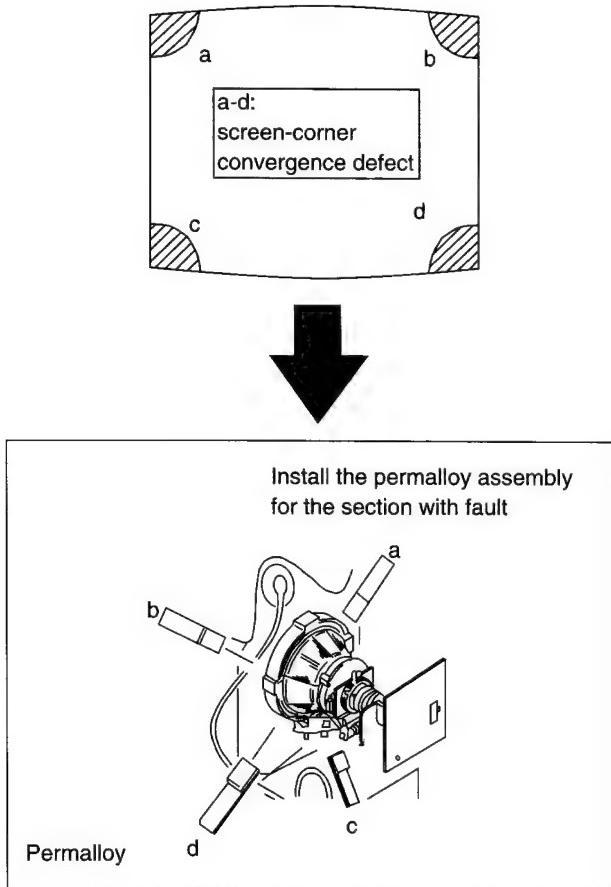
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- Slightly loosen the deflection yoke screws.

- Remove the deflection yoke spacer.
- Move the deflection yoke as shown in the figure below and optimize the convergence.
- Tighten the deflection yoke screws.
- Re-install the deflection yoke spacer.

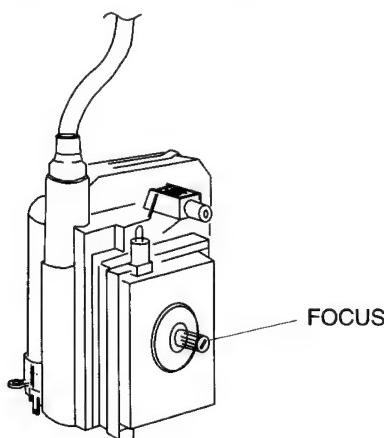


**(4) Screen corner convergence.**

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.

**3-3. Focus**

Adjust the focus to optimize the screen.

**3-4. WHITE BALANCE****Screen G2 Setting**

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

**White balance adjustment**

1. Receive an all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" on how to enter service mode.)
3. Select TDA8366 1 on menu.

DEVICE : TDA8366 1

STAT : 12

NEXT  
 PREVIOUS  
 OK

USE COLOUR KEYS  
SONY TEST MENU.

4. Press the White button on the Remote Commander to enter into the device Menu.
5. Press the Red button 10 times "Next" "Next" "Next" to select HWB RED, adjust to 040.
6. Press the Red button to select HWB GREEN, adjust with the + and - menu buttons so that the white balance becomes optimum.
7. Press the Red button to select HWB BLUE, adjust with the + and - menu buttons so that the white balance becomes optimum.
8. Press the TV button twice on the Remote Commander to store the data and return to TV operation.

## SECTION 4

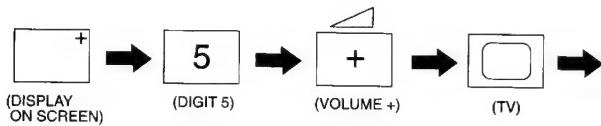
### CIRCUIT ADJUSTMENTS

#### 4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-833.

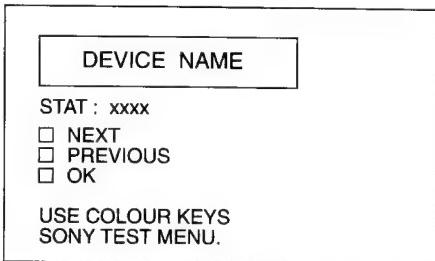
##### HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.

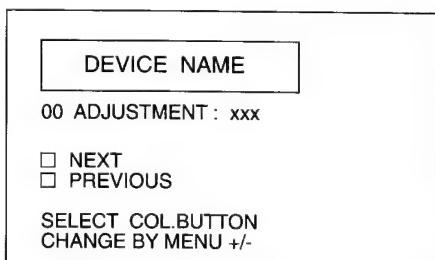


"TT" will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.



4. Press the Red (Next) and Green (Previous) buttons to select the device corresponding to the adjustment item from the table. Then press the White button (OK).



5. Press the Red (Next) or Green (previous) buttons to select the adjustment item. Then press the  $\nabla$  and  $\Delta$  buttons to change the data to comply with each standard.
6. Turn off the power to quit the service mode when adjustments are completed.

Initial Conditions for setup of TDA8366, TDA6612 and SAA7283. ( Stereo Models Only )

TDA8366 1	INIT VALUE	TDA8366 2	INIT VALUE
Hue	31	Interlace	00
H Shift	Adj	Sync Mode	00
H Size	Adj	Col Dec	00
Pin Amp	Adj	Vert Div	00
Corn Pin	Adj	Vid ID	00
Tilt	Adj	EHT Track	01
V.Linear	Adj	En V Grd	00
V.Size	Adj	Serv Blk	00
S.Corr	Adj	OVP Mode	00
V.Cent	Adj	Aspect R	00
HWB Red	Adj	Start Freq	00
HWB Green	Adj	Y/C Input	00
HWB Blue	Adj	PAL/NTSC	00
Peaking	8	Xtal PLL	00
Bright	32	Y Delay	07
Colour	32	RGB Blk	00
Picture	37	Noise Cor	00
AGC Set	00	Fast Blk	01
Srce Sel 1	00	AFC Wind	00
Srce Sel 2	00	IF Sensty	00
Time Con	03	Mod Std	00
Xtal Ind	03	Vid Mute	01
FF Freq	02		

TDA6612	INIT VALUE	TDA6612	INIT VALUE
MPX Per	00	Mute 2	01
Quasi St	00	C1/2LS	00
Bass Exp	00	C1/2KH	00
H Pulse	00	Mono	01
Matrix St	00	Scart	00
Bypass	00	Scart D	00
Vol L Sp	07	AM	00
Vol R Sp	07	SAA7283	INIT VALUE
Vol HP	00	Mon M1/M2	01
Pll Sync	00	DM Select	01
Mute 3	01	SSWIT 123	07
Treble	08	Port 2	00
Bass	09	Mute Def	00
X Talk Adj	Adj	AMDIS	00
Mute 1	00	E Max	80
		E Min	01

#### 4-2. TEST MODE 2 :

Is available by pressing Test button twice, OSD 'TT' appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	"Menu" Flag request
10	Tenth entry is deleted
11	dummy
12	dummy
13	dummy
14	Forced AV 16:9 detection on/off
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Label for AV Sources
18	RGB Priority on/off
19	Clear all preset labels
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24	Set destination = U RGB Priority = Off
25	Set destination = D RGB Priority = Off
26	Set destination = B RGB Priority = On
27	Set destination = K RGB Priority = Off
28	Set destination = L RGB Priority = Off
29	Set destination = E RGB Priority = Off

30	Tenth entry is deleted
31	Set Destination = A RGB Priority = On
32	dummy
33	Auto AGC
34	N/S Pin Adjust
35	Manual AGC Adjust
36	dummy
37	dummy
38	dummy
39	dummy
40	Tenth entry is deleted
41	Re-initialise NVM
42	Production use only
43	Initialise Geom Settings
44	Initialise all favorite pages = 100
45	Channel locks = off
46	IR Channel Presetting Mode The channel presetting can be done by a Special IR Transmitter ( Ver 2 and above software only)
47	dummy
48	Set NVM testbyte to 44h
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by µ-Controller.

In Test Mode the Menu display is switchable by the Speaker-Off button.

**Note :** For Test Modes 41 - 49 it is necessary to ensure that the TV is set to Prog 59.

**SUB BRIGHTNESS ADJUSTMENT**

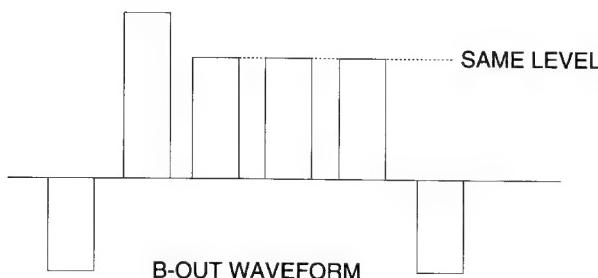
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

**SUB CONTRAST ADJUSTMENT**

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin (1) of CN703 (R OUT) and adjust HWB Red data of TDA8366 1 to obtain 2.3Vp-p.

**SUB COLOR ADJUSTMENT**

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin (3) of CN703 (B OUT) on the C board.
3. Enter into service mode and press 22.
4. Adjust data so that the right sides of the waveform are set to the same level.

**STEREO SEPARATION ADJUSTMENT**

1. Input a 1KHz stereo signal to the L-ch and a 400Hz stereo signal to the R-ch.
2. Enter into service mode and select the "Test Menu" to be TDA6612.
3. Select the Stereo Xtalk Adjustment Menu, by using the Red (Next) and Green (Previous) buttons.
4. Monitor the Scart 1 L-channel output and adjust the data so that the R-channel sound is not detected in the L-channel.

**I.F. COIL ADJUSTMENT (T101) - B/G, D/K, I AND L STANDARD FOR CONTINENTAL MODELS.**

1. Apply a 38.9MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

**I.F. COIL ADJUSTMENT (T101) - I, STANDARD FOR U.K. MODELS.**

1. Apply a 39.5MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

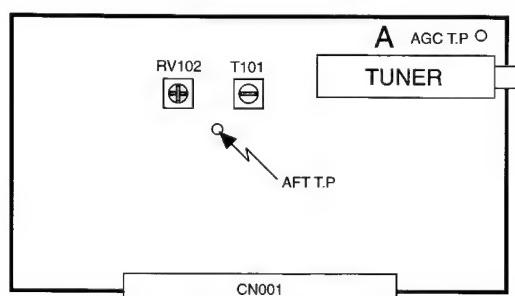
**L, BAND 1 ADJUSTMENT (RV102) - L, STANDARD FOR FRENCH MODELS.**

1. Apply a 33.95MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for positive modulation and system L band 1.
3. Measure the voltage at the AFT test point and adjust (RV102) to obtain 2.4V +/- 0.2V.

**Note :** Only adjust RV102 after T101 has been correctly adjusted.

**AGC ADJUSTMENT**

1. Receive an off-air signal.
2. Enter the service mode, ("Test" "Test") and 35.
3. Adjust the data so that there is no snow or cross-modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



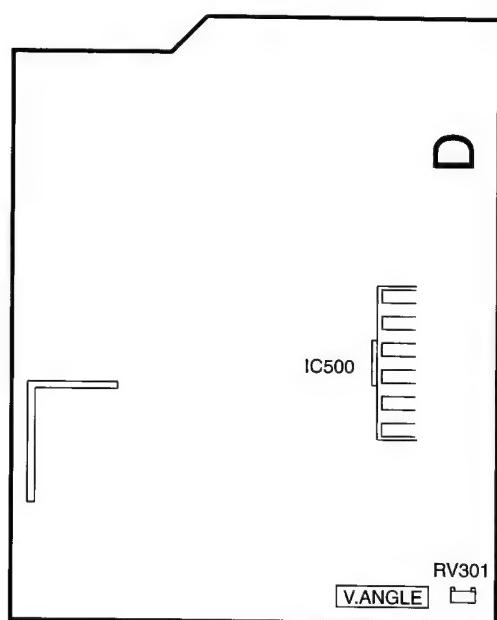
- A Board component side -

**DEFLECTION SYSTEM ADJUSTMENT**

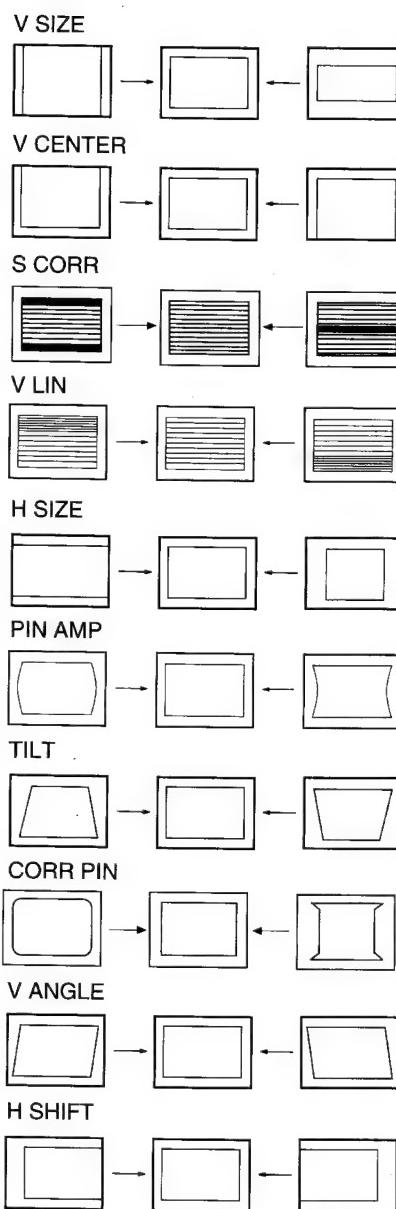
1. Enter into service mode.
2. Select and adjust each item in order to obtain the optimum image.

Item No	Adjustment item.	Data Amount
03	H SHIFT	ADJ.
04	H SIZE	ADJ.
05	PIN AMP	ADJ.
06	CORR PIN	ADJ.
07	TIILT	ADJ.
08	V LINEAR	ADJ.
09*	V SIZE	ADJ.
0A	S CORR	ADJ.
0B	V CENTER	ADJ.

Note : V ANGLE is adjusted by a Variable Resistor on the 'D' Board (RV301)



- D Board Component Side -



### 4-3. BE3 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3 chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1., on fatal errors are reported with this method.

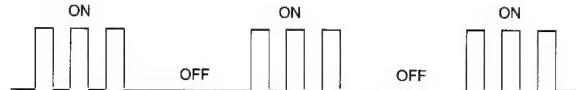
If a fatal error is found the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue operation.

**Table 1**

Device	LED Error Count	Fatal Error
NVM	2 .. 9	✓
Teletext	10	
Jungle	11	✓
Video_sw	12	
Tuner	13	✓
Nicam	14	
Audio_cont	15	✓

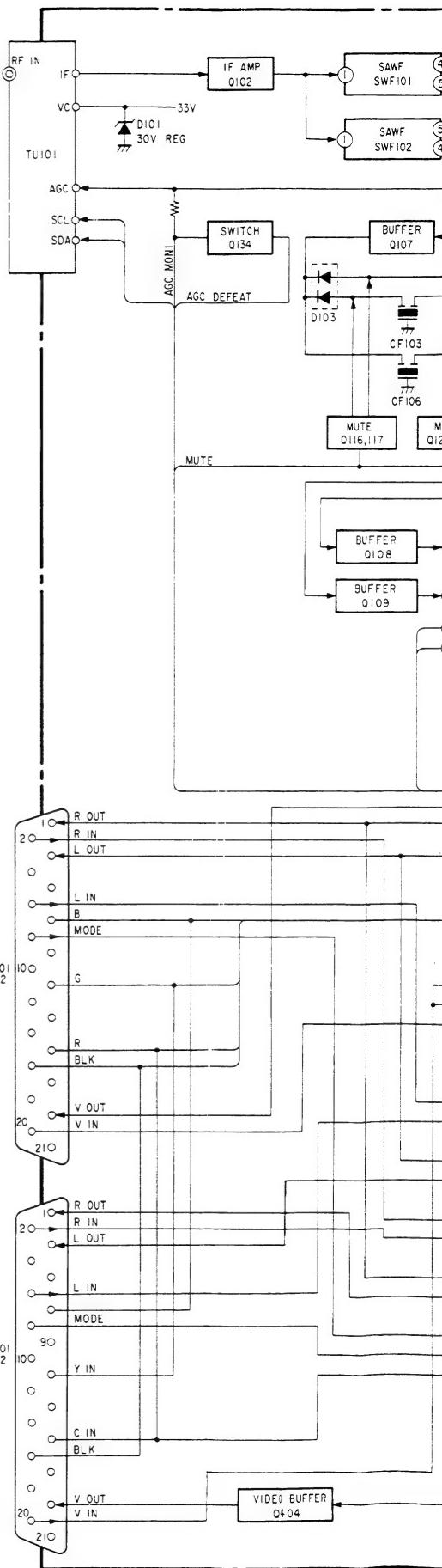
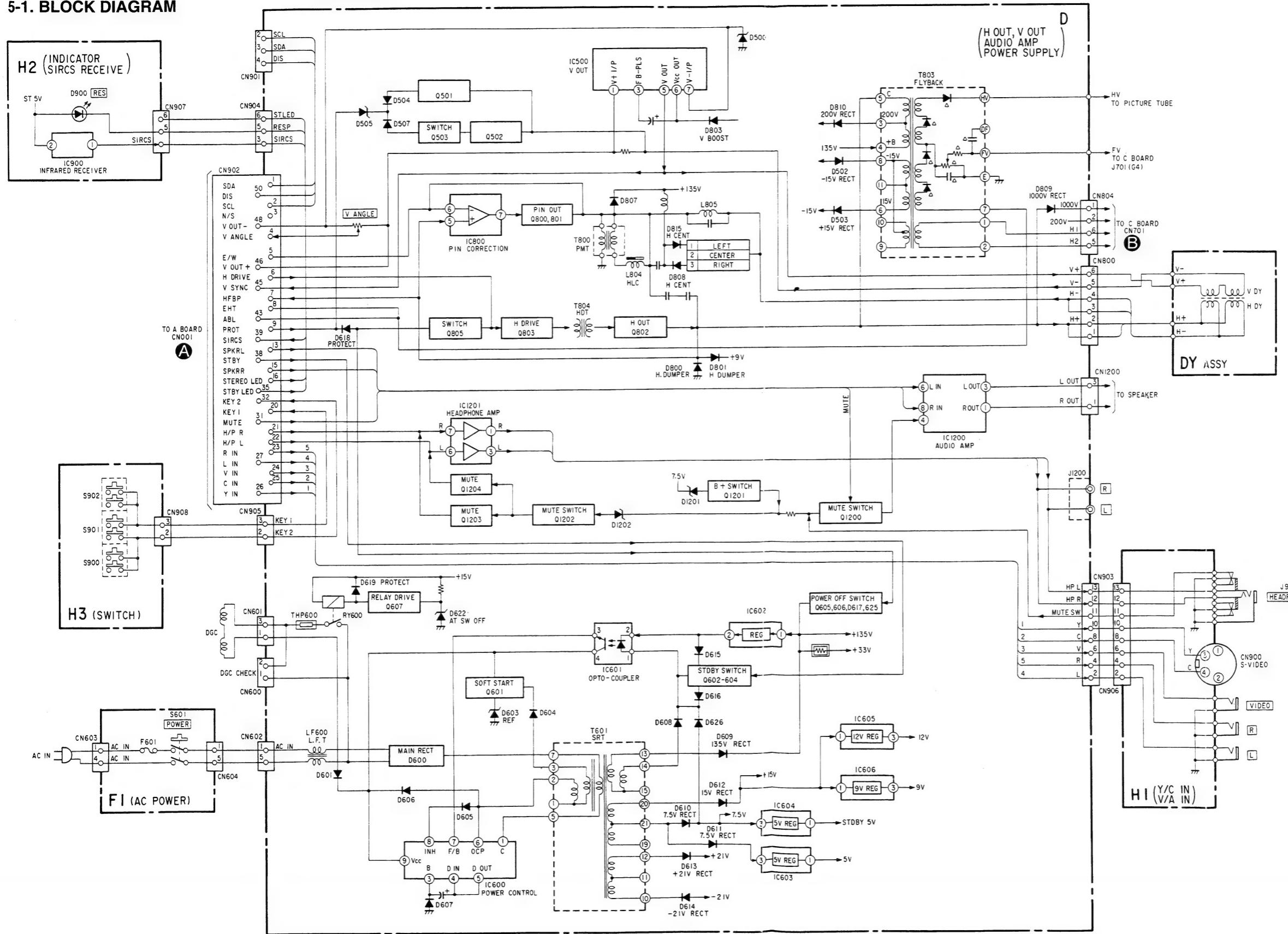
Flash Timing Example : e.g. error number 3.

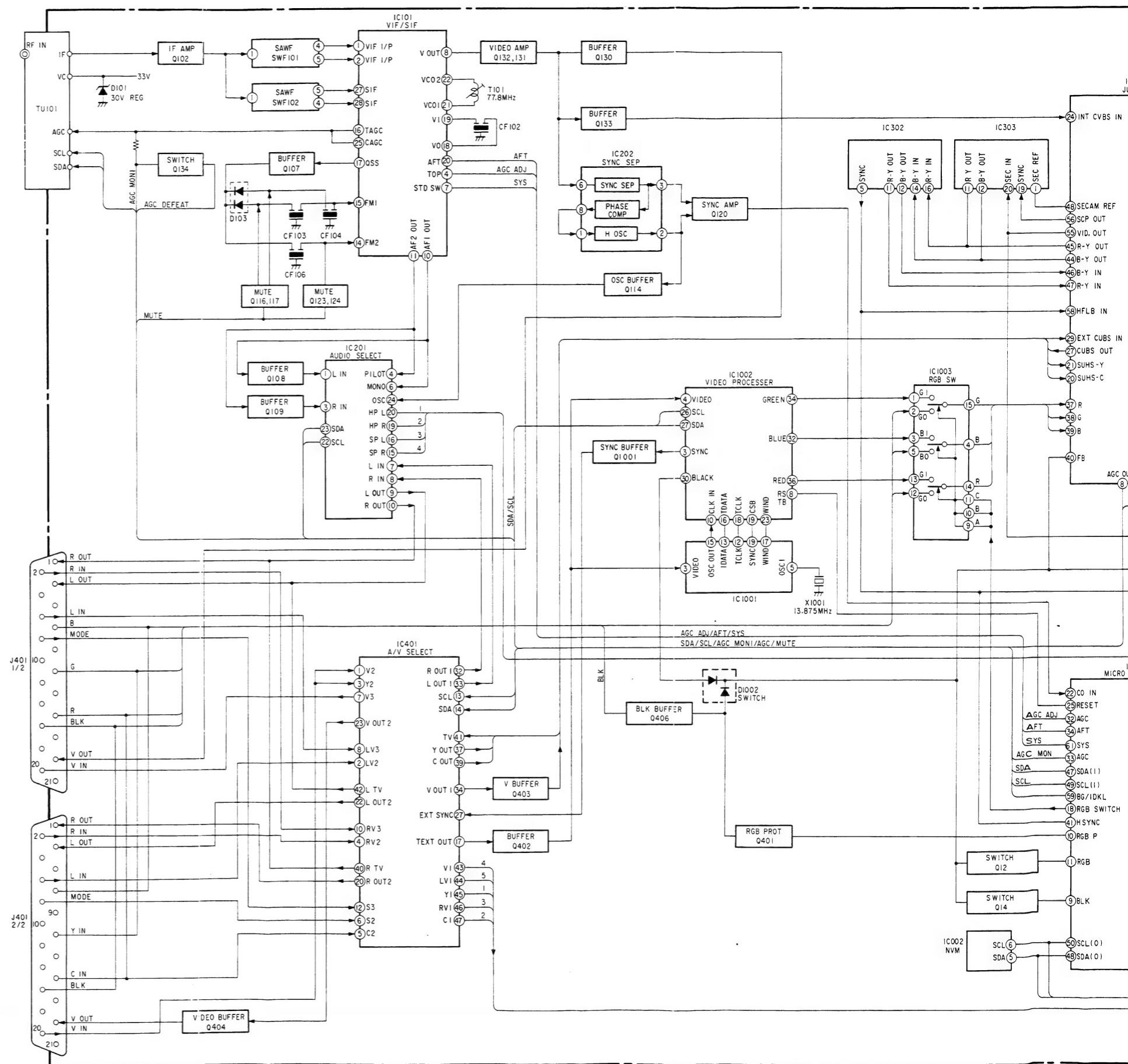
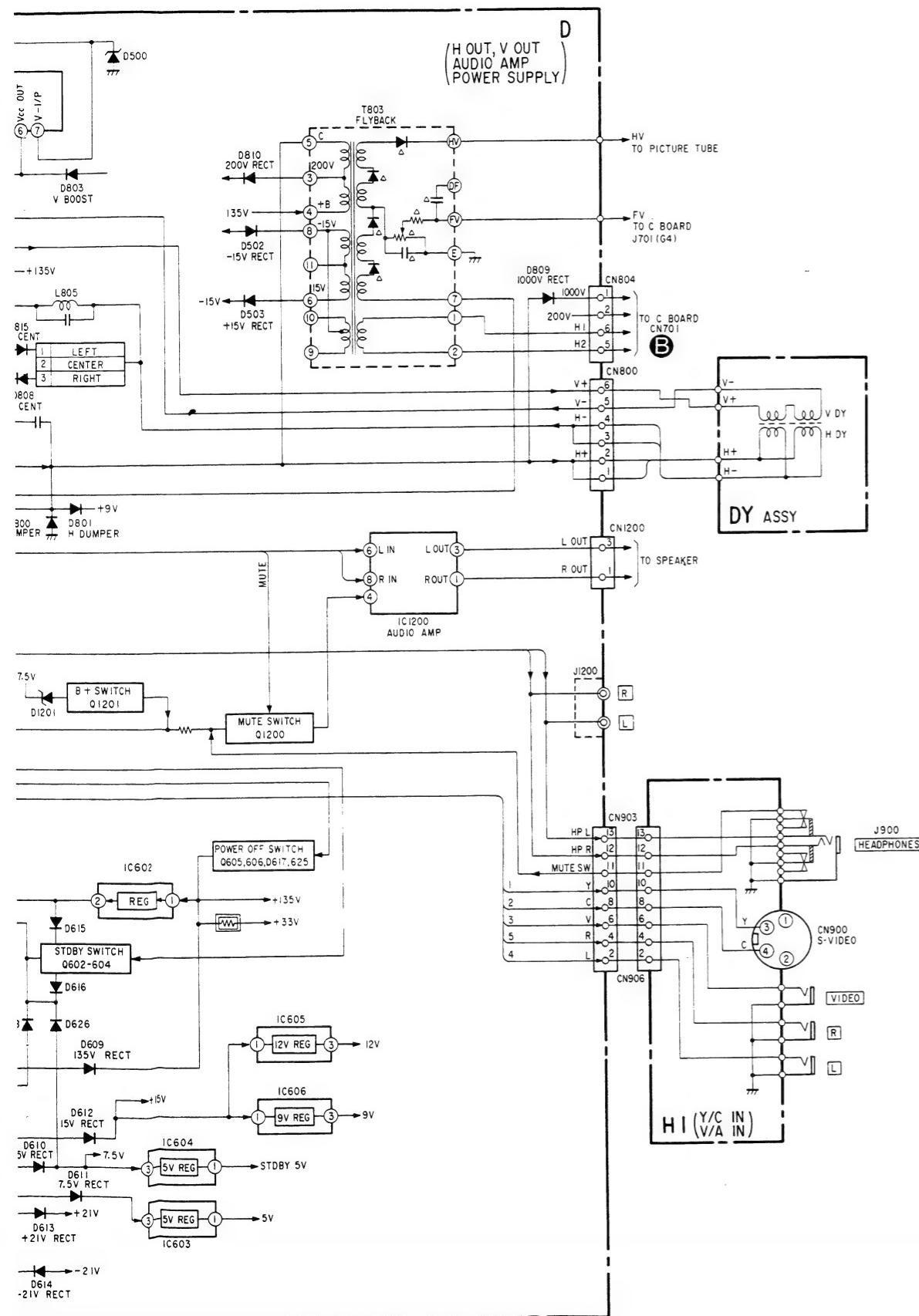
Stby LED

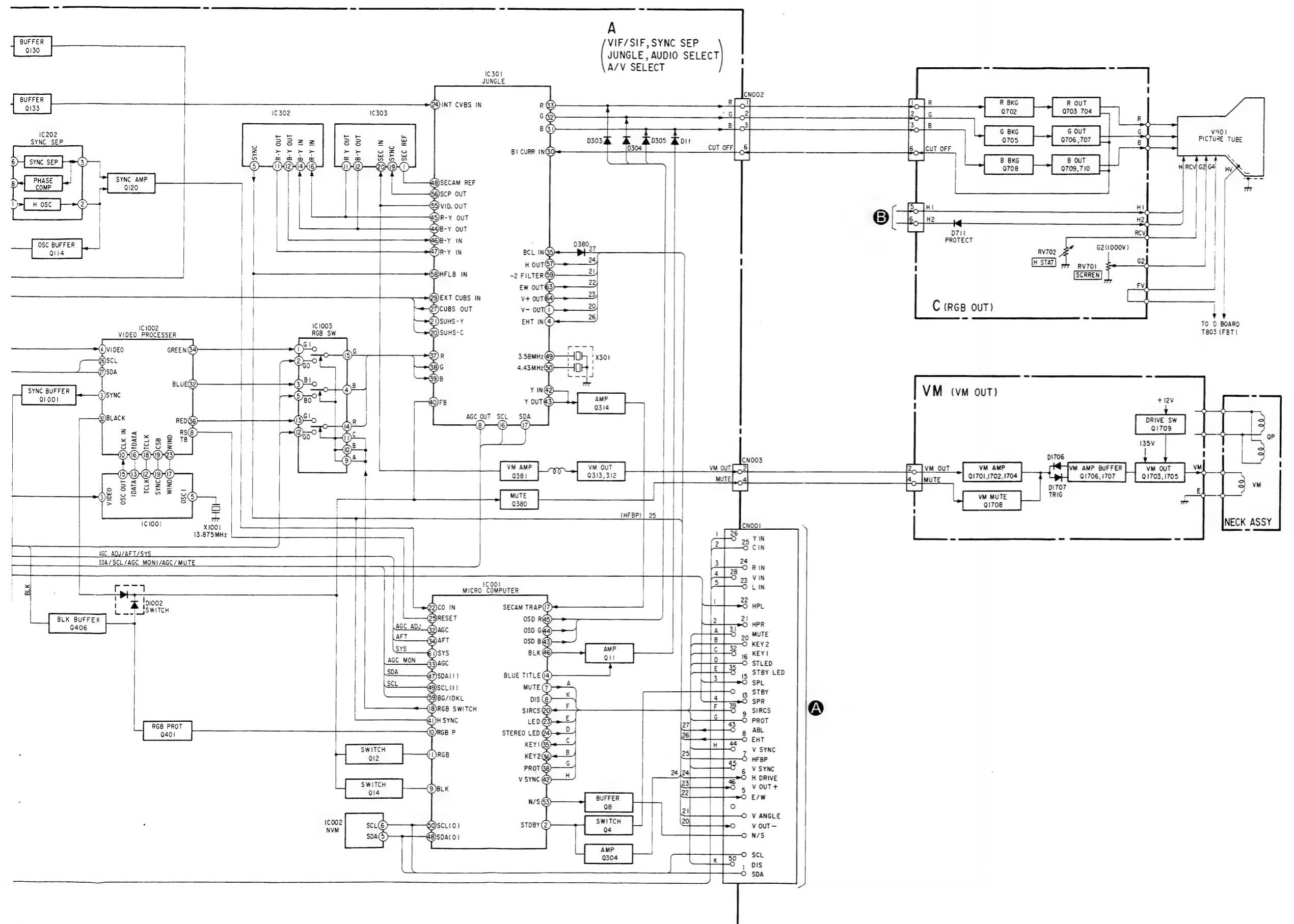


## **SECTION 5 DIAGRAMS**

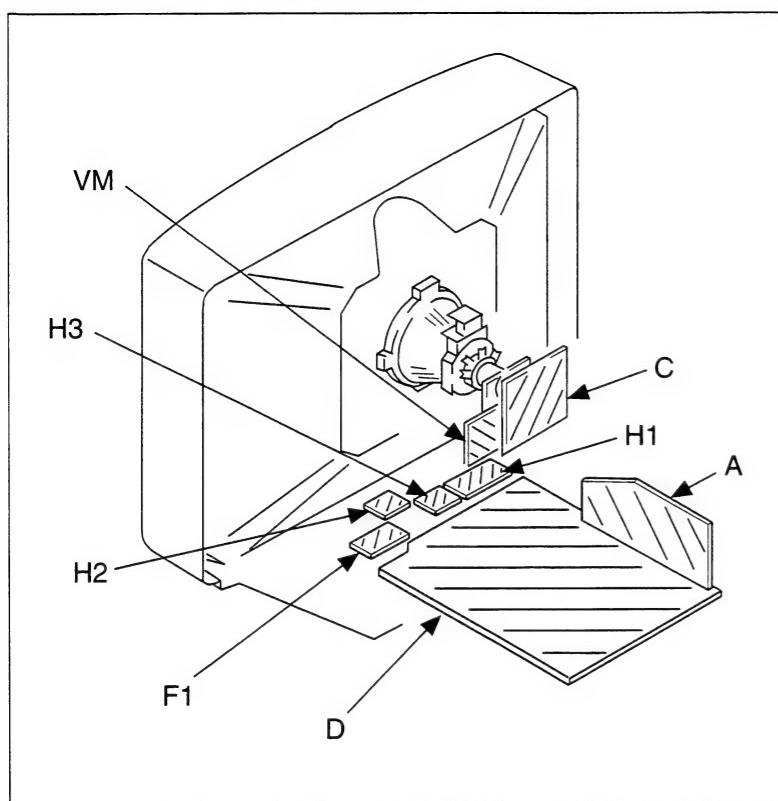
## 5-1. BLOCK DIAGRAM







## 5-2. CIRCUIT BOARDS LOCATION



## Reference information

RESISTOR	RN	: METAL-FILM
	RC	: SOLID
FPRD		: NONFLAMMABLE CARBON
FUSE		: NONFLAMMABLE FUSIBLE
RS		: NONFLAMMABLE METAL OXIDE
RB		: NONFLAMMABLE CEMENT
RW		: NONFLAMMABLE WIREWOUND
※		: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
MPS		: METALIZED POLYESTER
MPP		: METALIZED POLYPROPYLENE
ALB		: BIPOLAR
ALT		: HIGH TEMPERATURE
ALR		: HIGH RIPPLE

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

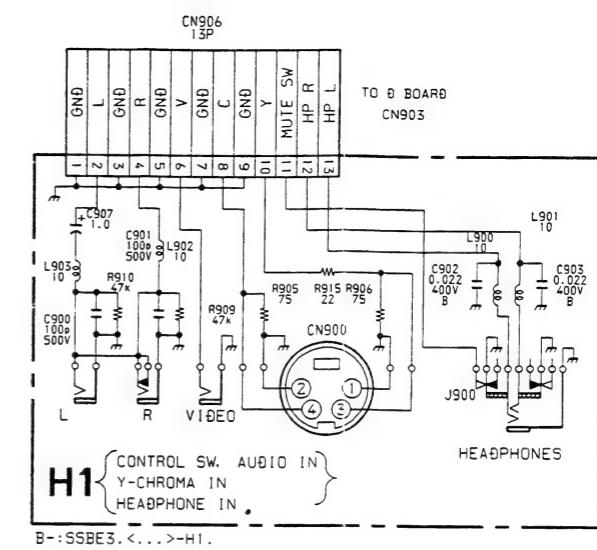
## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

## Note :

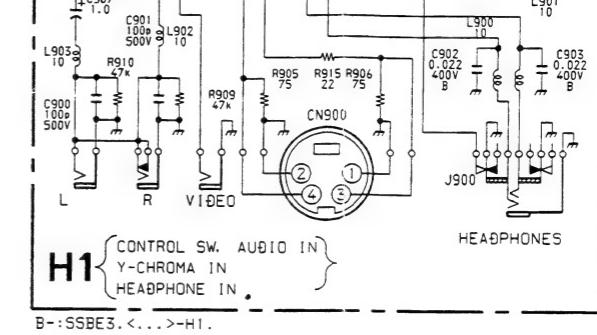
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
 $\mu\text{F}$ :  $\mu\mu\text{F}$  50V or less are not indicated except for electrolytic.
  - Indication of resistance, which dose not have one for rating electrical power, is as follows.
- Pitch : 5mm  
 Rating electrical power :  $1/4\text{W}$
- Chip resistor is in  $1/10\text{W}$ .
  - All resistors are in ohms.  
 $\text{k}\Omega = 1000\Omega$ ,  $\text{M}\Omega = 1000\text{K}\Omega$
  - : nonflammable resistor.
  - : fusible resistor.
  - $\Delta$  : internal component.
  - : panel designation or adjustment for repair.
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
  - All voltages are in V.
  - Readings are taken with a  $10\text{M}\Omega$  digital multimeter.
  - Readings are taken with a color-bar signal input.
  - Voltage variations may be noted due to normal production tolerances.
  - : B+ bus.
  - : B- bus.
  - : signal path.(RF)
  - : earth - ground
  - : earth - chassis

1 2 3 4 5 6

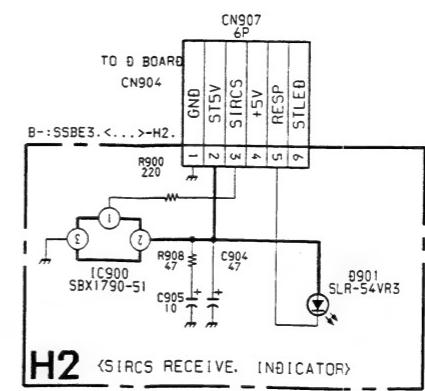
A



B



C



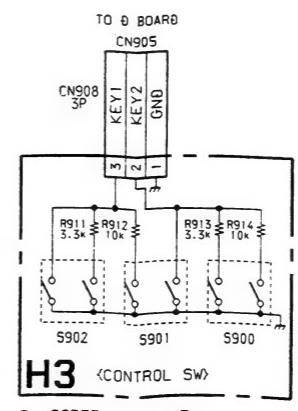
E



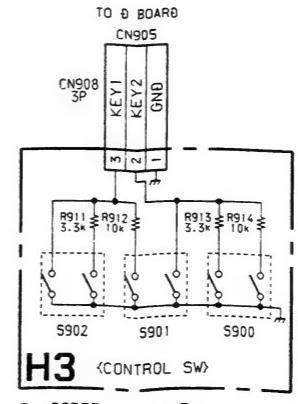
F



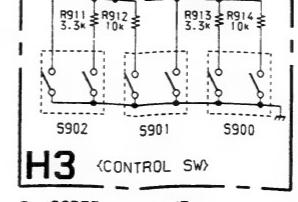
G



H



I

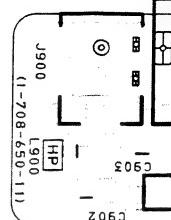


J

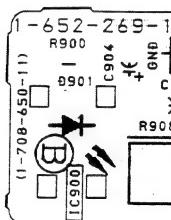


H1

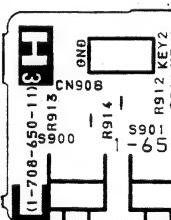
- H1 BOARD



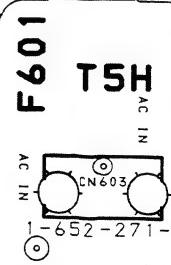
- H2 BOARD



- H3 BOARD

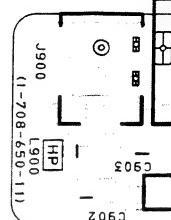


- F1 BOARD

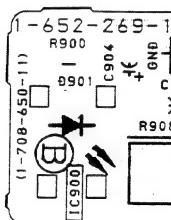


C

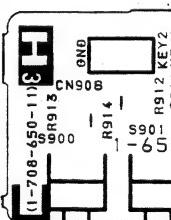
- C BOARD



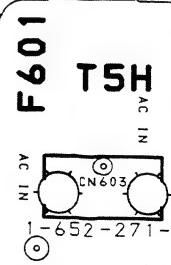
- D BOARD



- E BOARD



- F BOARD



G

- G BOARD



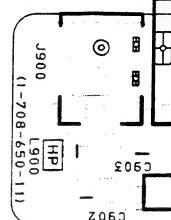
H

- H BOARD

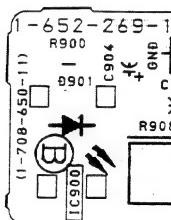


I

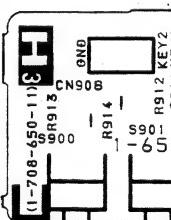
- I BOARD



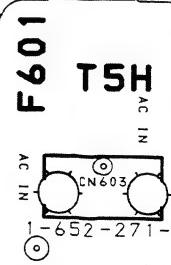
- J BOARD



- K BOARD



- L BOARD



M

- M BOARD



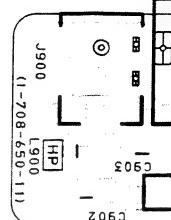
N

- N BOARD

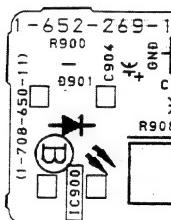


O

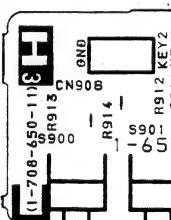
- O BOARD



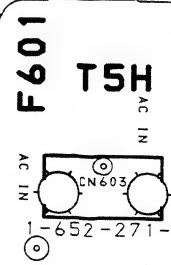
- P BOARD



- Q BOARD



- R BOARD



S

- S BOARD



T

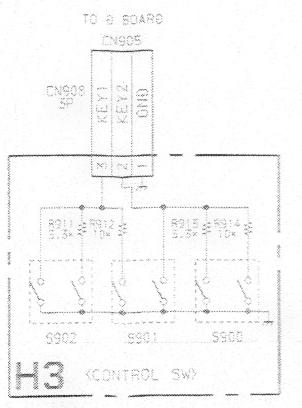
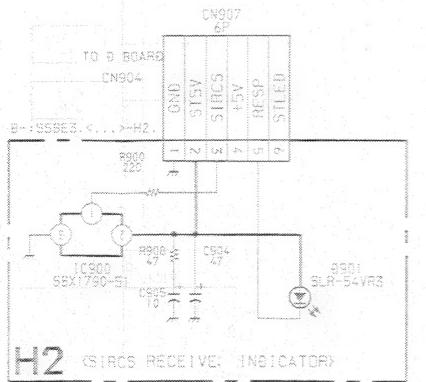
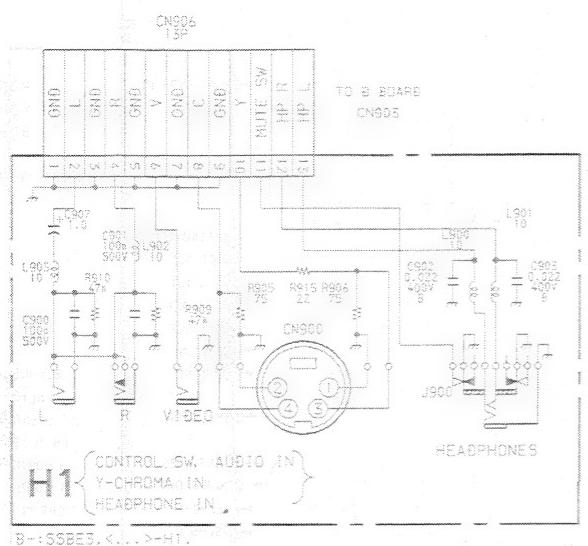
- T BOARD



KV-C298

KV-C298

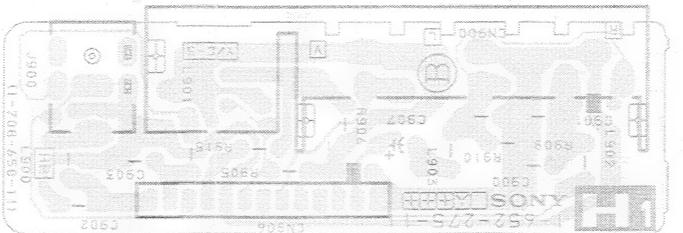
1 2 3 4 5 6



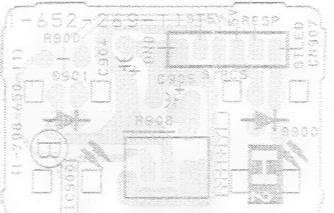
**H1** CONTROL SW, AUDIO IN  
Y-CHROMA IN, HEADPHONE IN    **H2** SIRCS RECEIVE  
INDICATOR    **H3** CONTROL SW    **F1** AC IN POWER SW

**D** HV OUT  
PIN OUT  
POWER

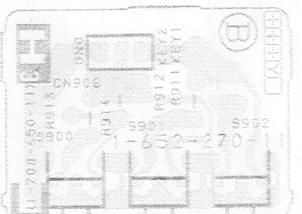
### - H1 BOARD -



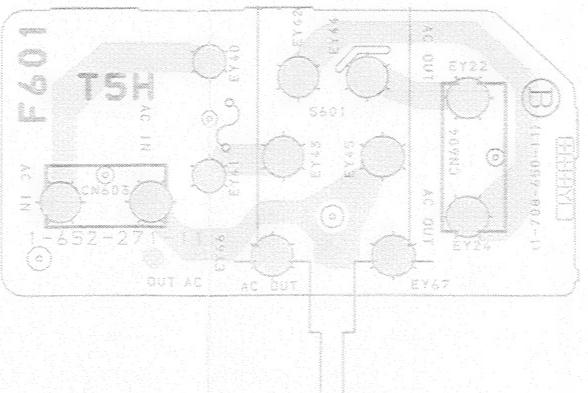
### - H2 BOARD -



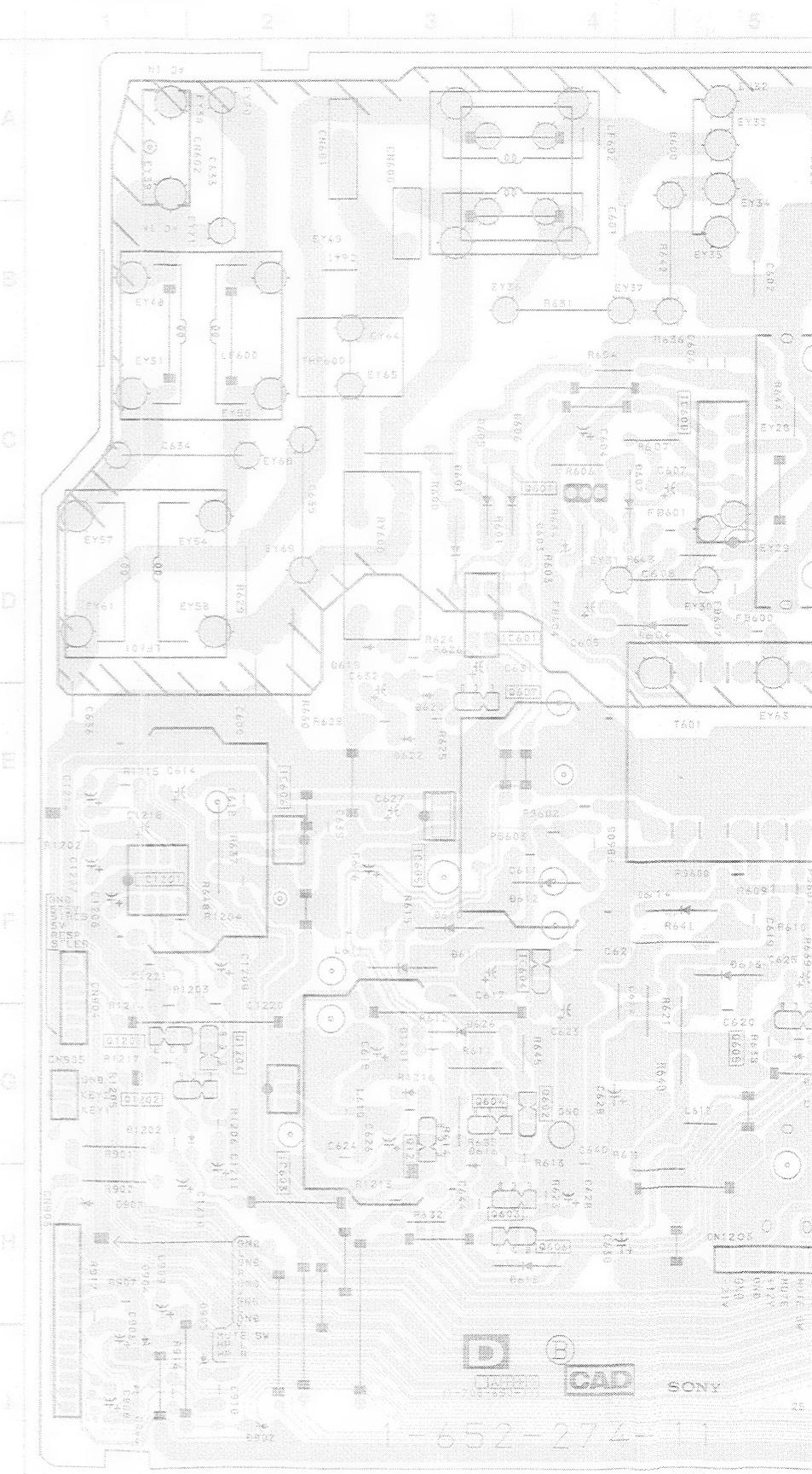
### - H3 BOARD -



### - F1 BOARD -



### - D BOARD -



2

SIRCS RECEIVE  
INDICATOR

H3

[CONTROL SW]

F1

[AC IN POWER SW]

D

HV OUT  
PIN OUT  
POWER SUPPLY

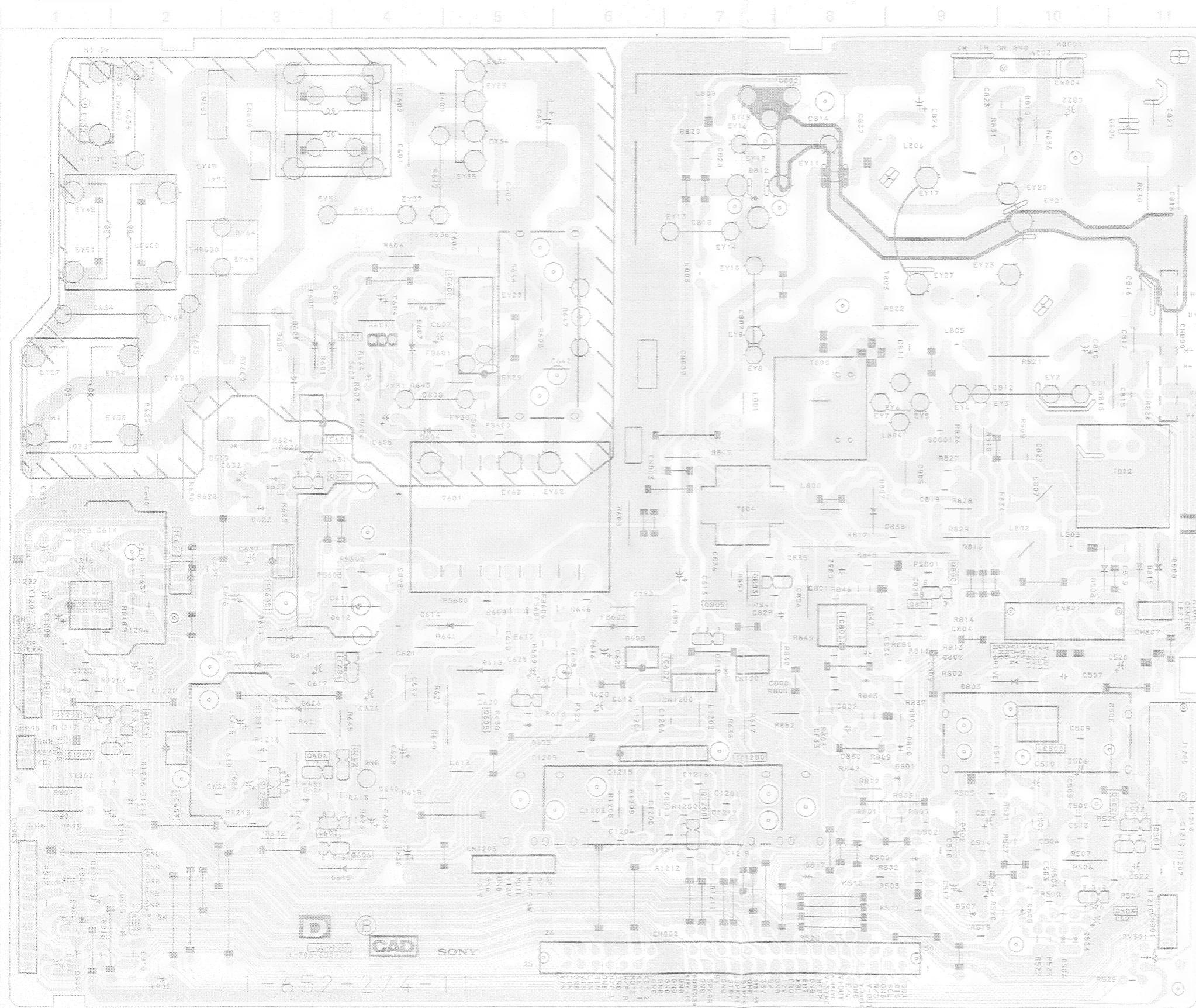
KV-C298

KV-C298

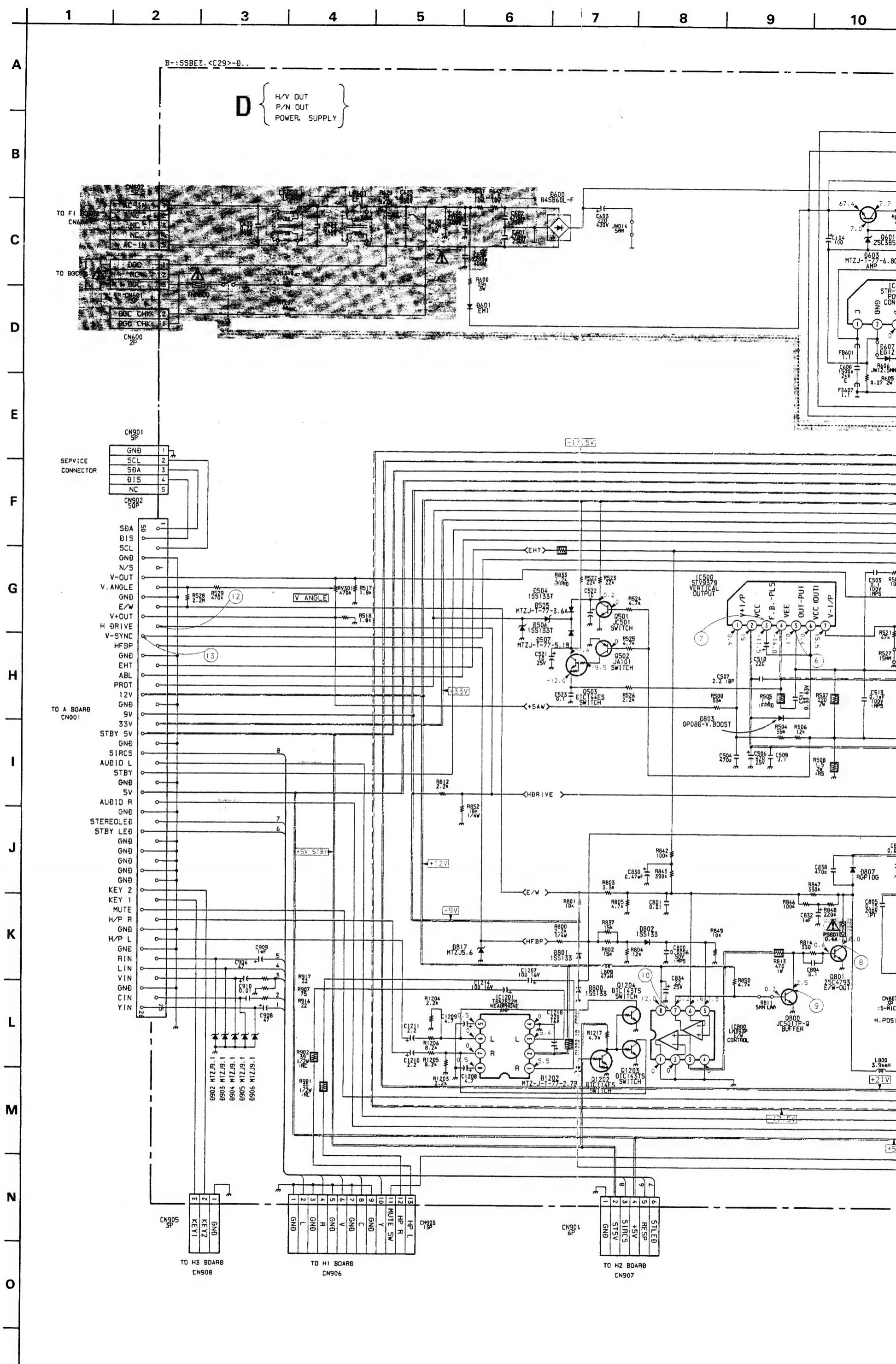
## NOTE:

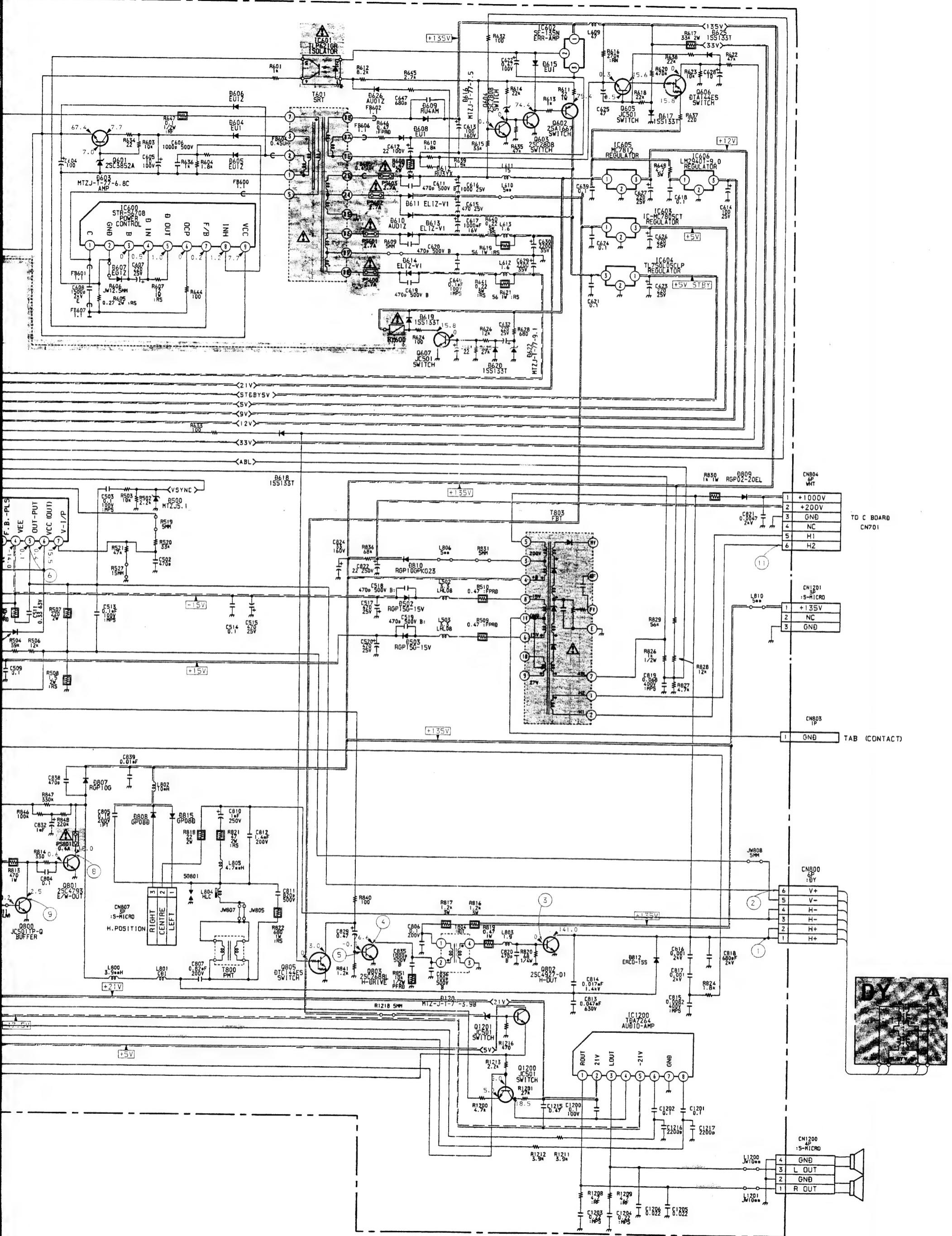
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

## - D BOARD -

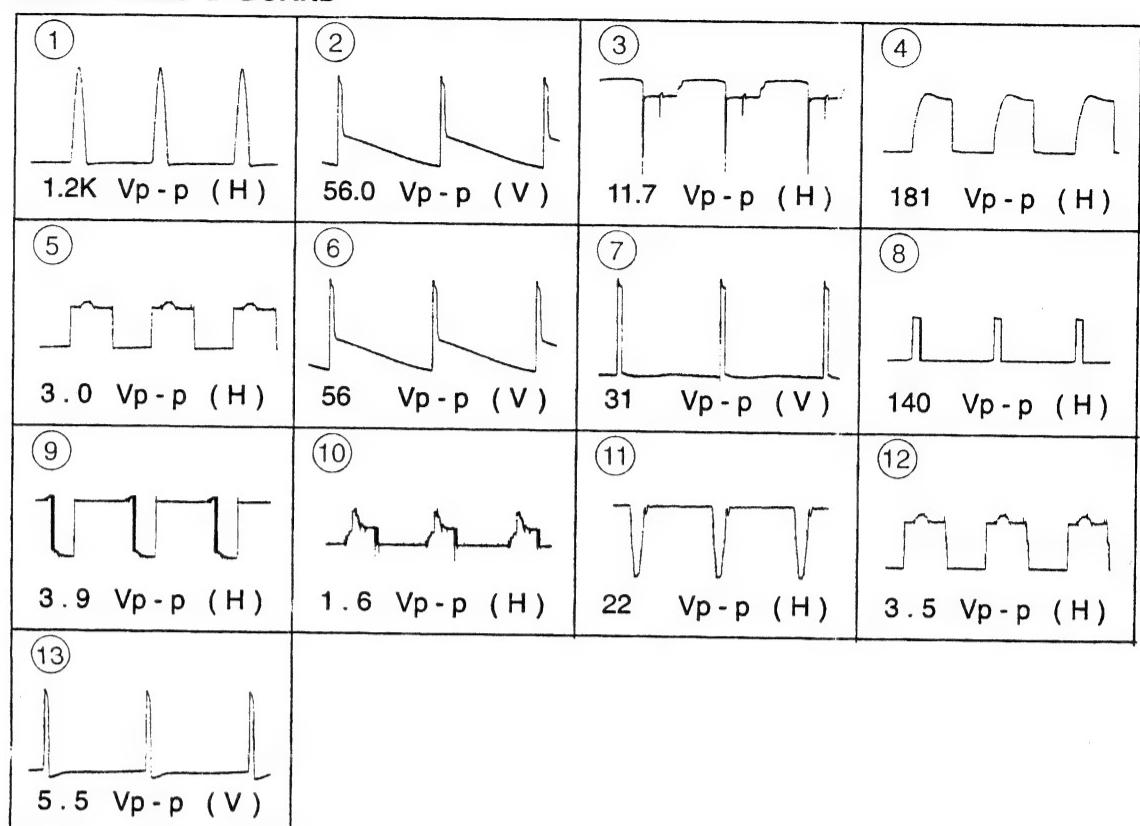


IC	
IC500	A-4
D600	G-10
D601	C-3
D603	D-4
D604	D-4
D605	C-3
D606	C-4
D607	F-7
D608	F-6
D609	F-6
D610	F-3
D611	F-3
D612	F-4
D613	F-5
D614	F-4
D615	H-4
D616	G-3
D617	F-5
D618	F-7
D619	D-2
D620	E-3
D622	E-3
Q603	G-5
Q604	G-3
Q605	G-5
Q606	H-4
Q607	E-4
Q800	E-9
Q801	F-9
Q802	F-9
Q803	A-8
Q805	F-7
Q1200	H-7
TRANSISTOR	
Q501	H-11
Q502	H-11
Q503	I-11
Q601	C-4
Q602	G-4
Q603	H-3
Q604	G-3
Q605	G-5
Q606	H-4
Q607	E-4
Q800	G-9
Q801	F-9
Q802	F-9
Q803	E-11
Q805	F-7
Q1200	H-7
DIODE	
D500	G-9
D502	G-9
D503	F-10
D504	I-10
D505	I-10
D506	I-10
D507	G-9

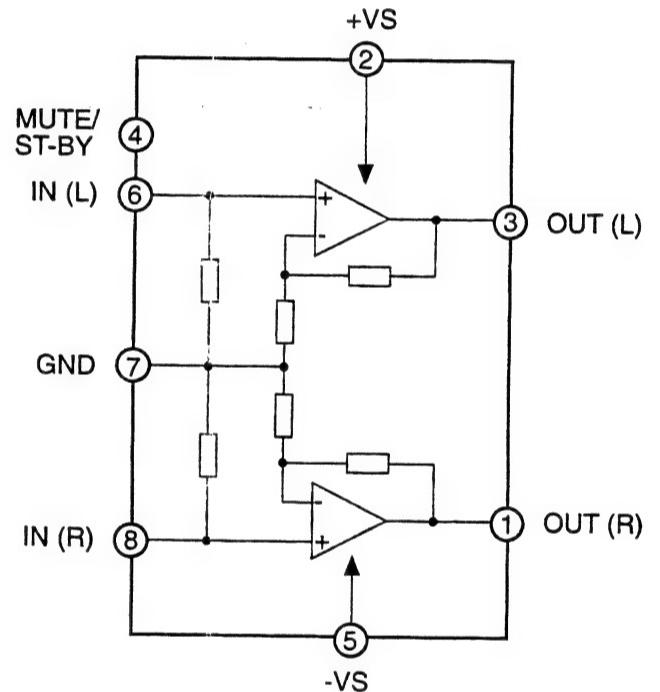




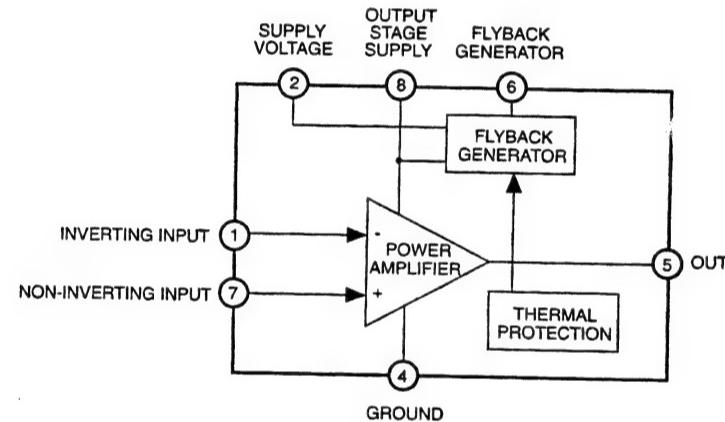
## WAVEFORMS D BOARD



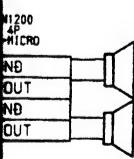
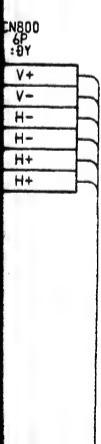
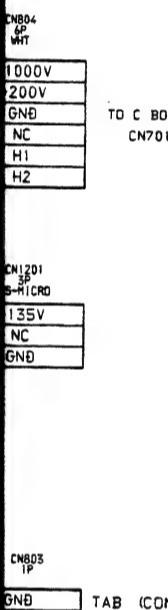
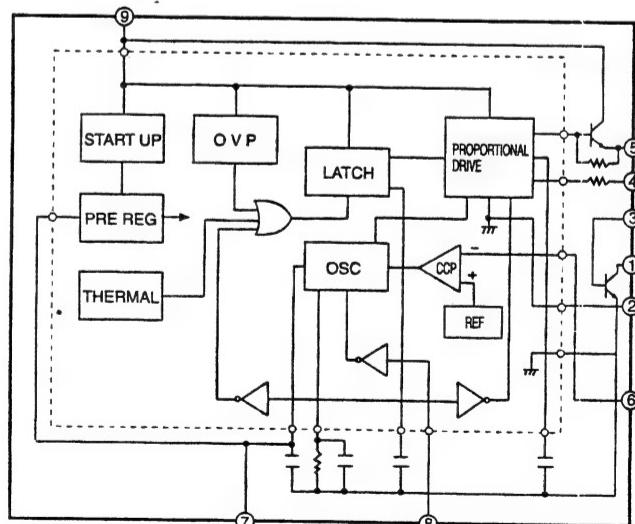
## D BOARD IC1200 TDA7264



## D BOARD IC500 STV9379



## D BOARD IC600 STR-S6708



A

R

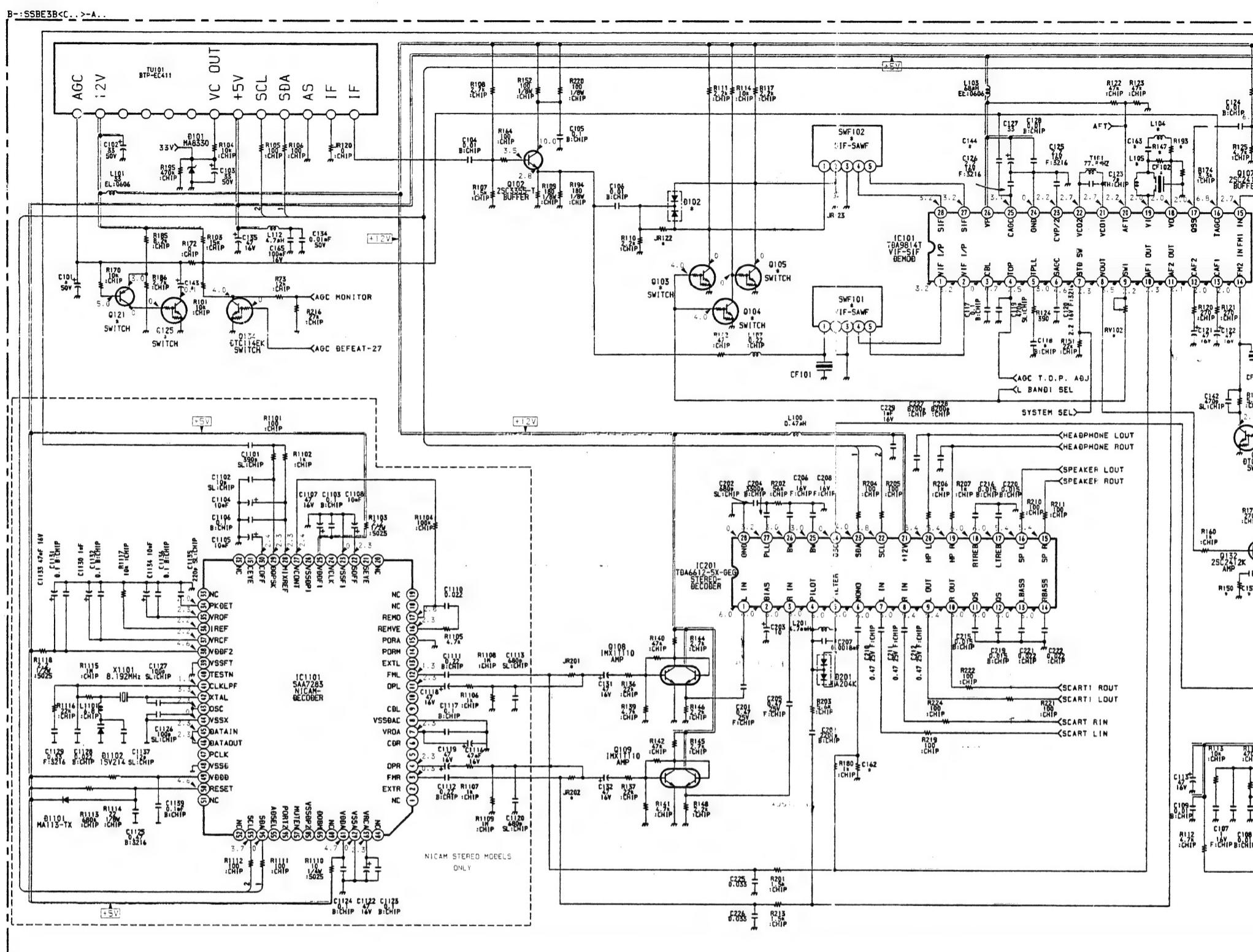
6

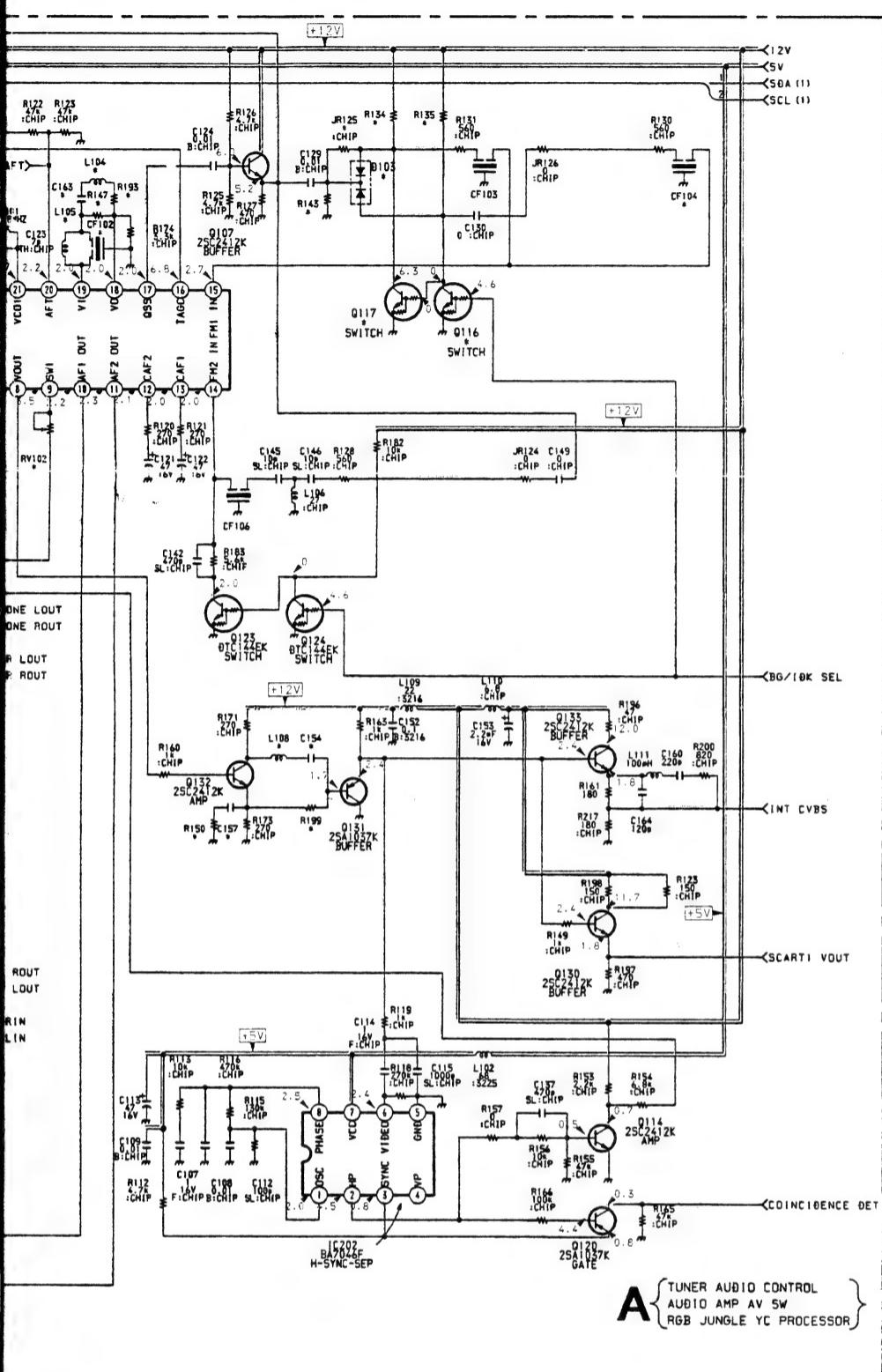
1

F

G

H



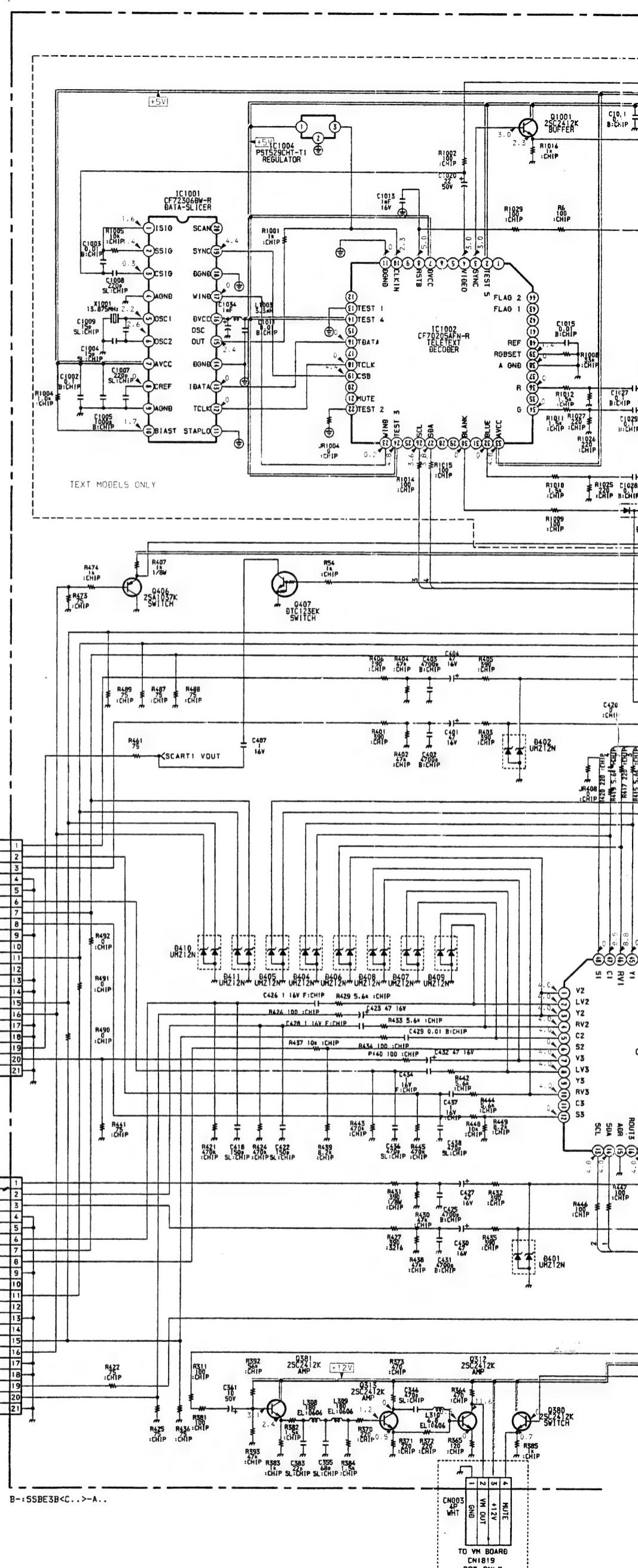


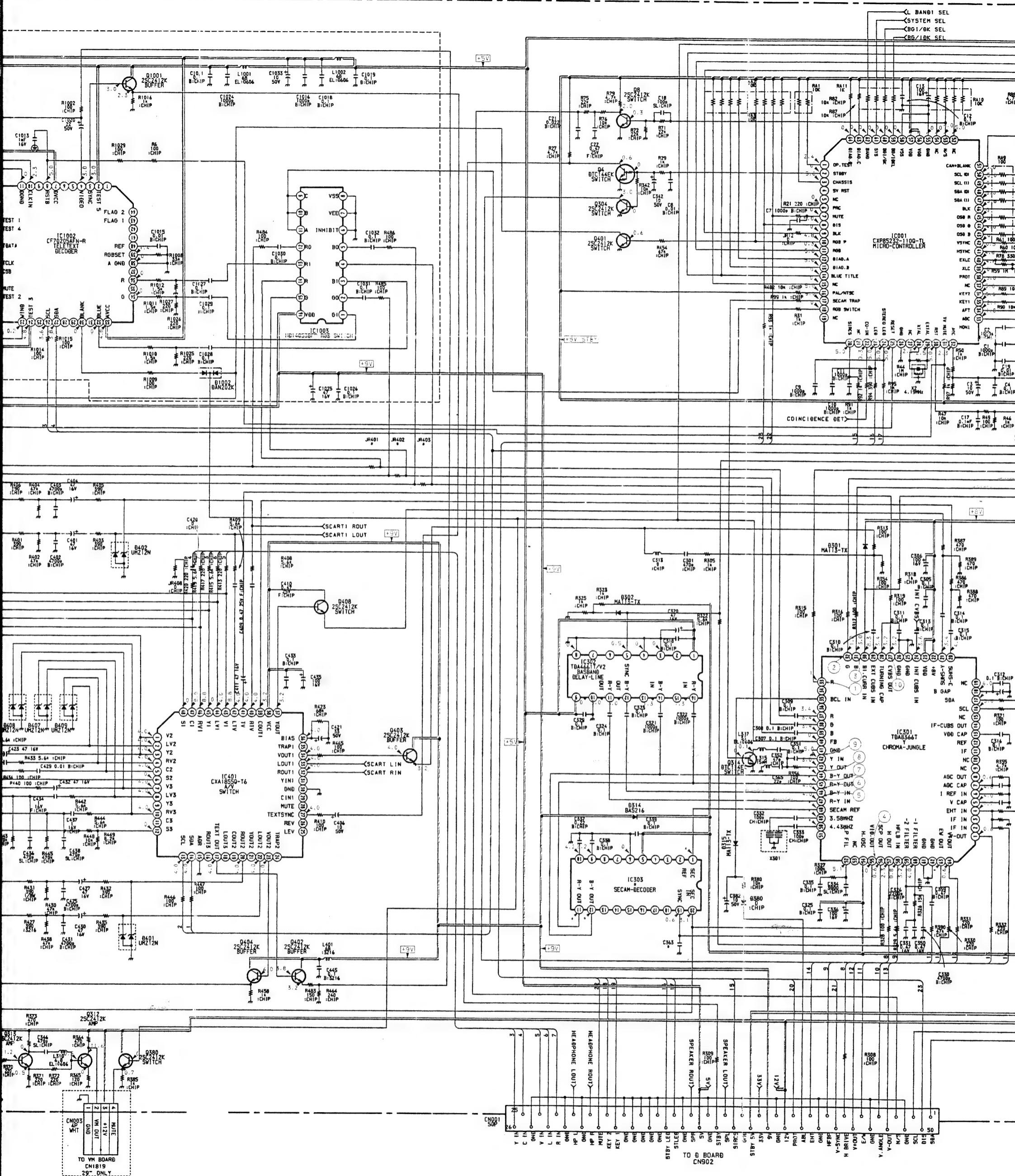
**A** { TUNER AUDIO CONTROL  
AUDIO AMP AV SW  
RGB JUNGLE YC PROCESSOR }

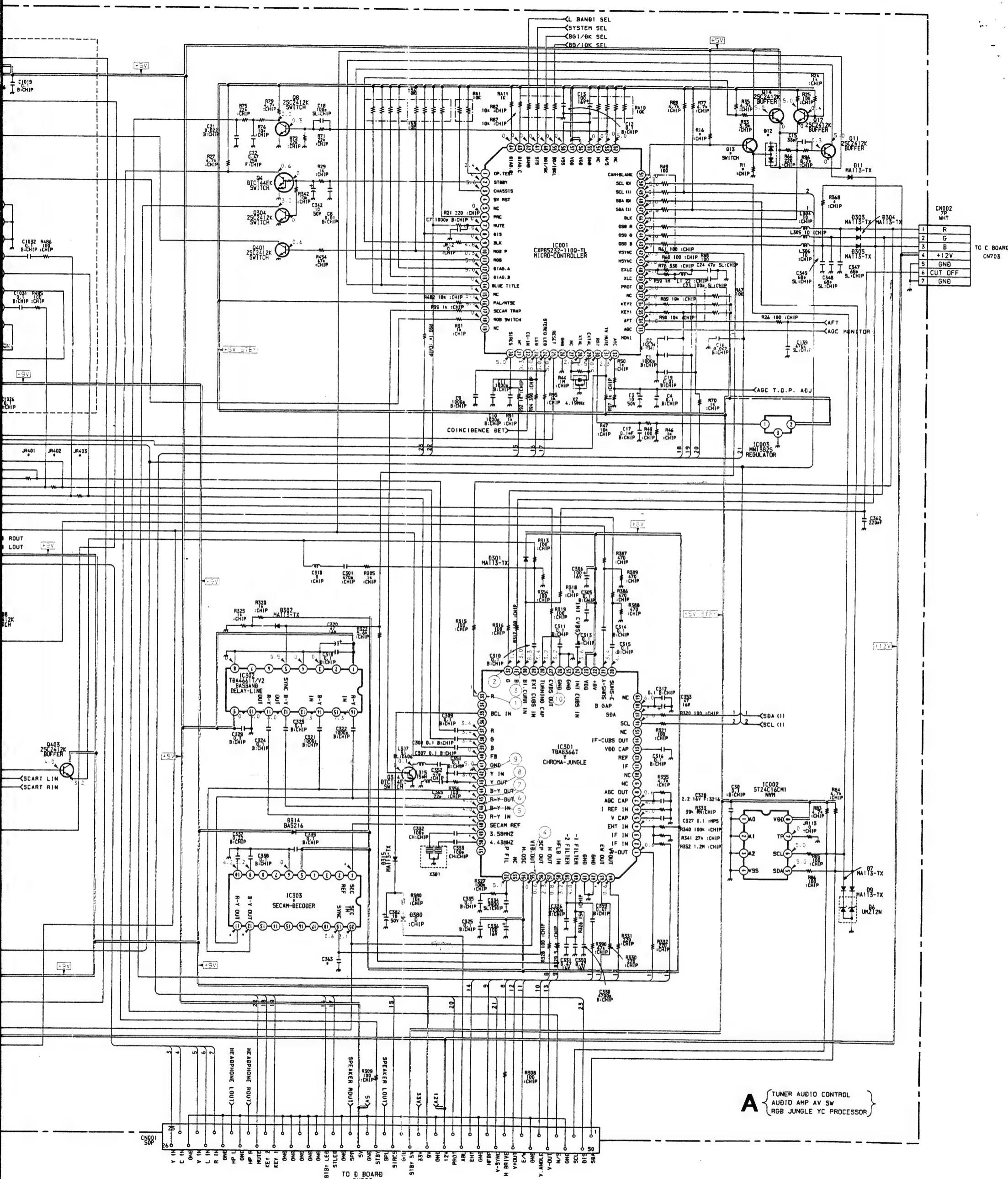
Voltages indicated with the mark  $\otimes$  on the schematic diagram are shown in the table below.

A BOARD

IC	Pin	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC301	17	4.0	4.0	4.0	0
	36	3.6	2.5	3.5	3.5
	44	1.5	3.1	1.5	1.5
	45	1.5	3.0	1.5	1.5
	48	1.7	4.4	1.6	1.7
	49	1.4	1.4	2.0	1.4
	50	2.0	2.0	1.4	2.0
	63	3.4	2.5	2.2	2.5
IC303	1	1.7	4.4	1.6	1.7
	11	1.5	3.0	1.5	1.5
	12	1.5	3.1	1.5	1.5

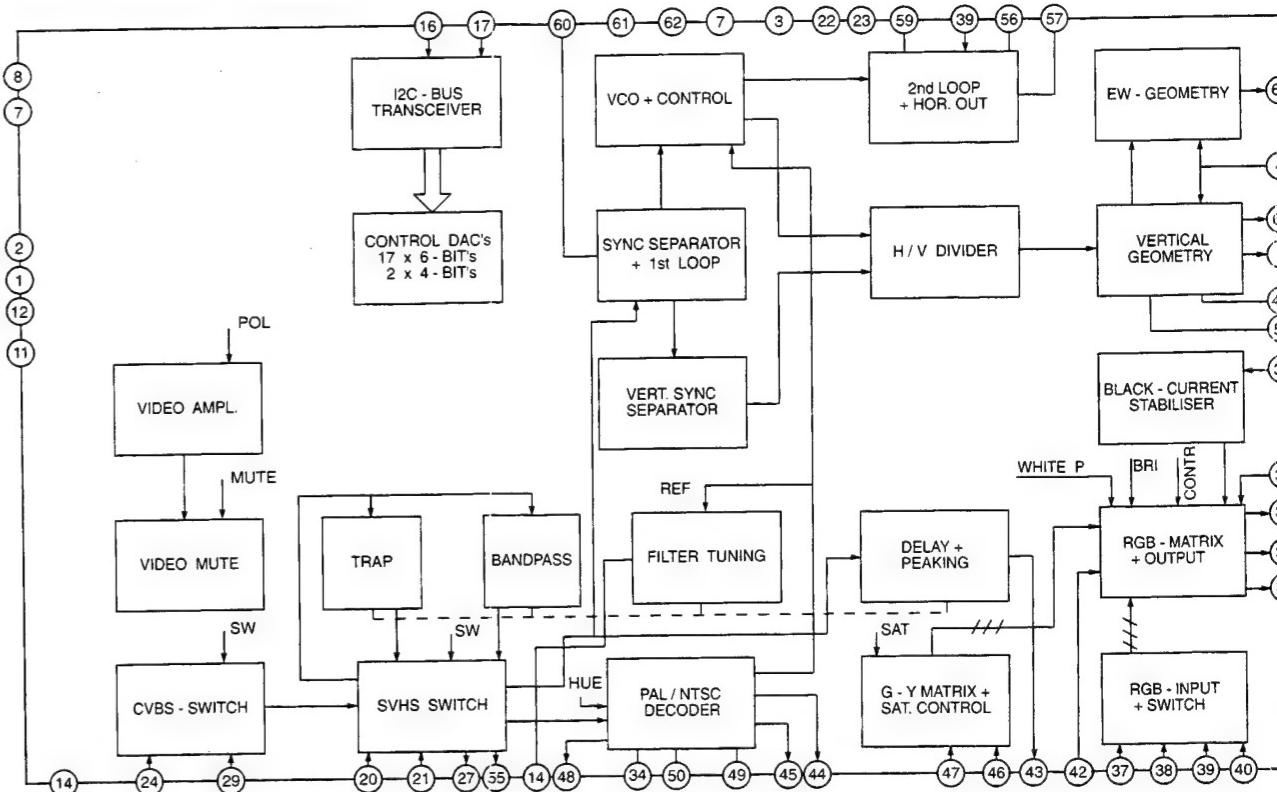
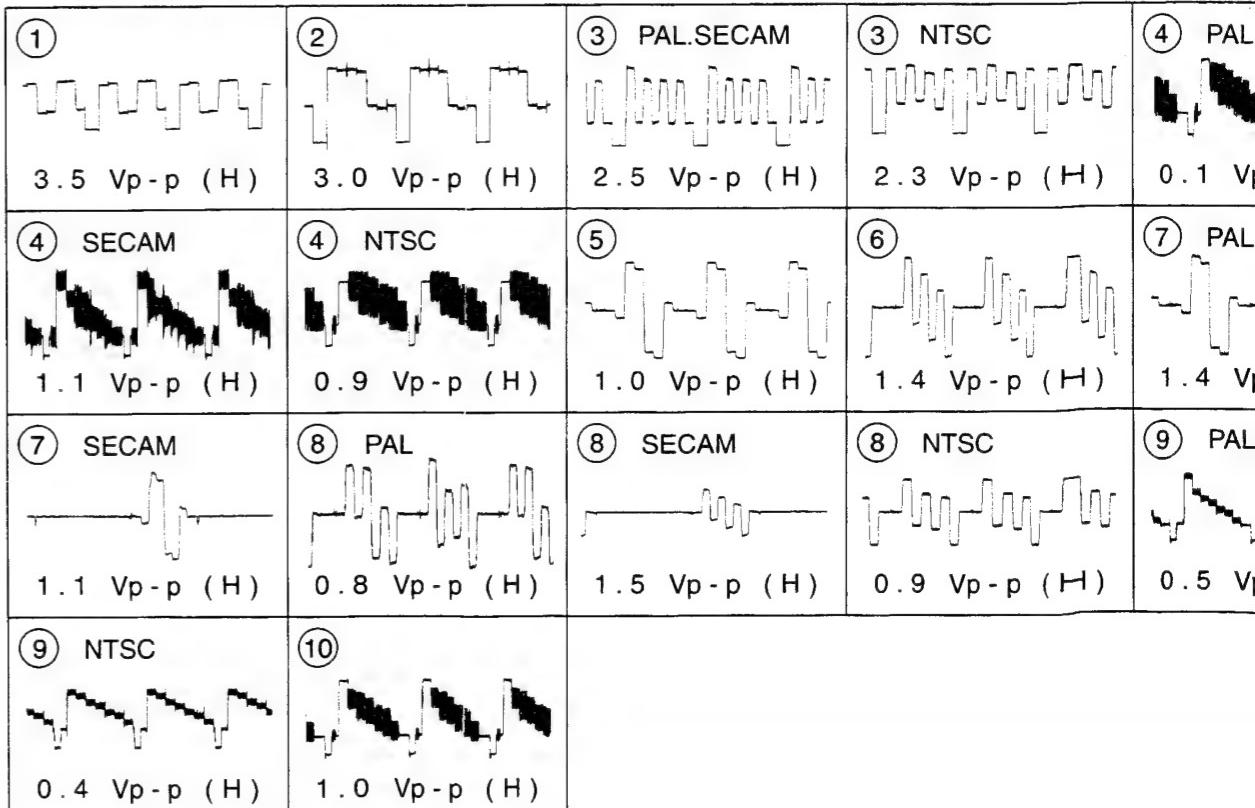






**A BOARD \* MARK**

Model	C2981A	C2980B	C2981D	C2983E
C101	22MF	4.7MF	22MF	22MF
C118	0.1MF	0.22MF	0.22MF	0.1MF
C143	-	1MF	-	-
C144	-	100MF	-	-
C154	180PF	33PF	180PF	180PF
C157	-	68PF	-	-
C162	-	0.012MF	-	-
C163	-	0.001MF	-	-
C363	-	22PF	22PF	-
CF104	-	6.0 MHz	6.5MHz	-
D12	-	MA715-TX	-	-
D102	-	DAN202K	-	-
D103	-	DAN202K	DAN202K	-
IC303	-	TDA8395T	TDA8395T	-
JR122	0	-	0	0
JR123	0	-	0	0
JR125	0	-	-	0
JR201	0	-	0	-
JR202	0	-	0	-
JR401	-	0	-	-
JR402	-	0	-	-
JR403	-	0	-	-
L104	-	100UH	-	-
L105	15UH	5.5UH	15UH	15UH
L108	8.2UH	27UH	8.2UH	8.2UH
Q13	-	2SC2412K	-	-
Q103	-	DTC114EK	-	-
Q104	-	DTC114EK	-	-
Q105	-	DTC114EK	-	-
Q116	-	DTC114EK	DTC114EK	-
Q117	-	DTC114EK	DTC114EK	-
Q121	-	2SA1162-G	-	-
Q125	-	DTC114EK	-	-
R1	-	1K	-	-
R16	-	1K	-	-
R134	-	2.2K	2.2K	-
R135	-	2.2K	2.2K	-
R143	-	2.2K	2.2K	-
R147	220	180	220	220
R150	-	0	-	-
R193	-	1K	-	-
R199	390	1.2K	390	390
R368	6.8K	-	6.8K	6.8K
RV102	-	22K	-	-
SWF102	1-760-329-11	1-760-244-21	1-760-329-11	1-760-329-11

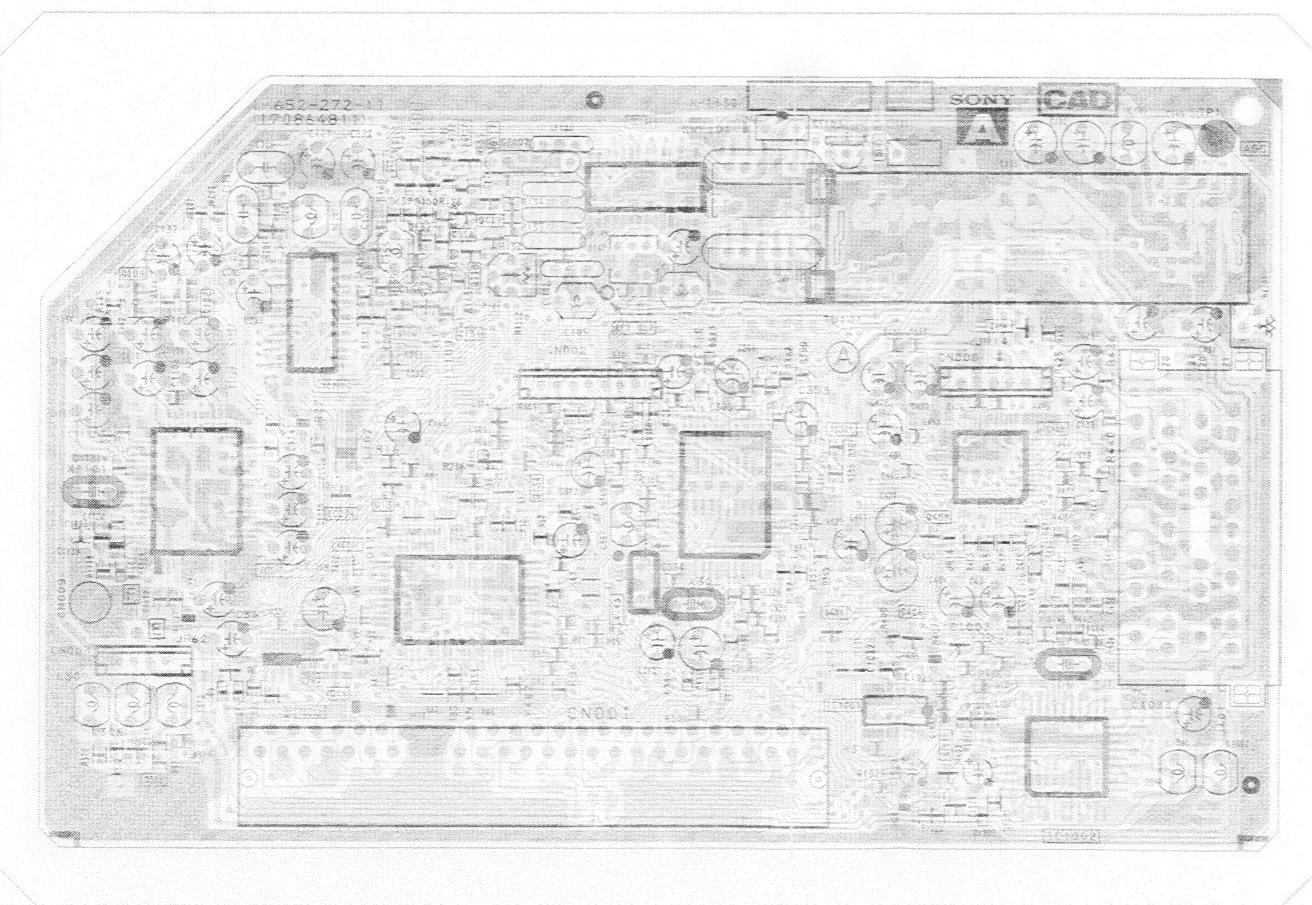
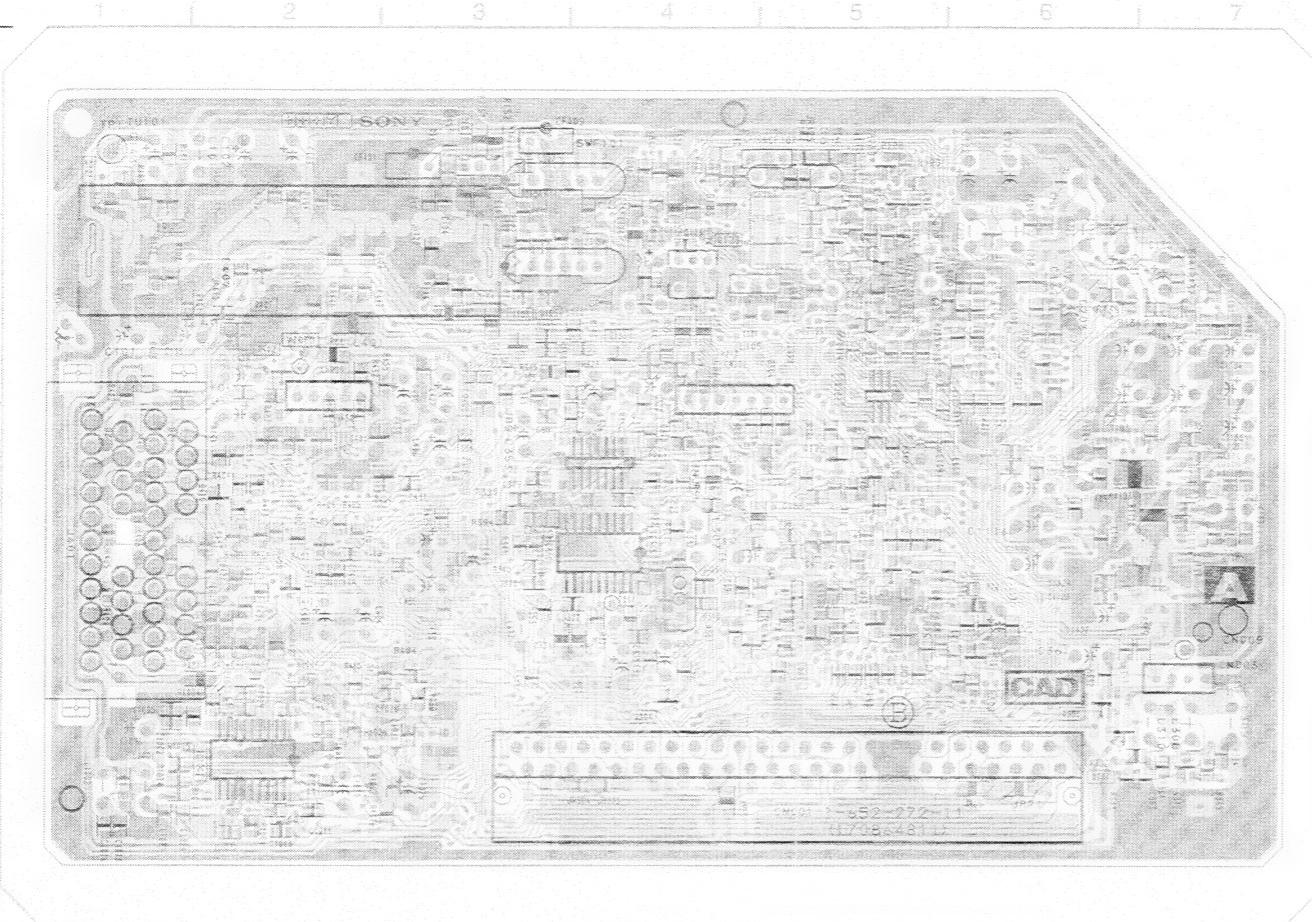
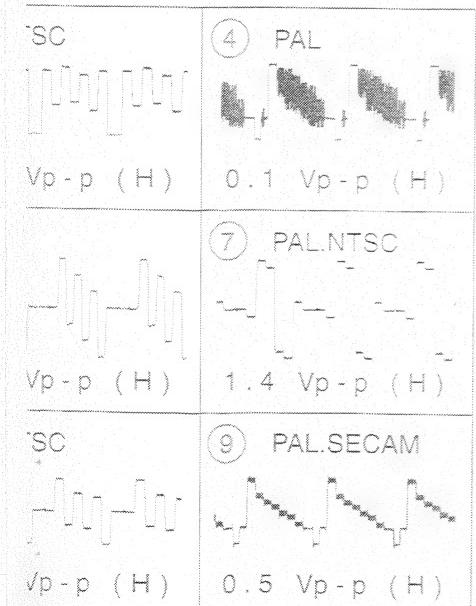
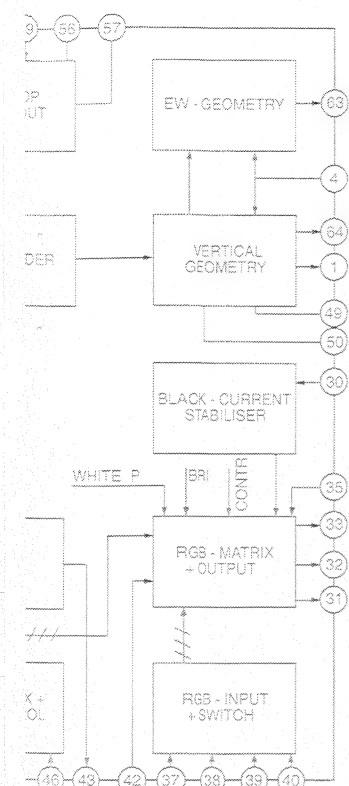
**A BOARD IC301 TDA8366T****WAVEFORMS A BOARD**

**A** TUNER AUDIO CONTROL  
AUDIO AMP AV SW  
RGB JUNGLE YC PROCESSOR

KV-C298

KV-C298

- A BOARD -



IC	
Q313	J - 1
Q314	C - 4
Q380	D - 6
Q381	D - 6
Q401	I - 5
Q402	B - 2
Q403	B - 3
Q404	G - 6
Q1001	I - 6
Q1003	J - 5
DIODE	
D6	I - 2
D7	I - 2
D9	I - 2
D11	D - 5
D101	B - 2
D102	B - 4
D103	A - 5
D201	B - 6
D301	G - 4
D302	C - 4
D303	H - 3
D304	B - 5
D305	C - 4
D314	B - 3
D380	I - 4
D401	C - 2
D402	C - 2
D404	C - 2
D405	C - 2
D406	C - 2
D407	C - 2
D408	C - 2
D409	C - 2
D410	C - 2
D411	D - 2
D1002	I - 6
D1003	J - 6
D1101	H - 1
D1102	C - 7
Q312	E - 7

Note:

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

KV-C298

KV-C298

12 13

A

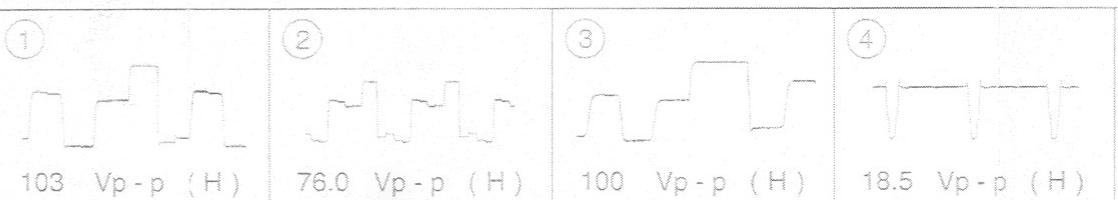
B

6

2

6

WAVEFORMS C BOARD



**VM AMP**

TO A BOARD CN1011

VM OUT

+12V

+135V

NC

GND

D BOARD CN519

VM AMP

B-SSBES3B-X29-VM

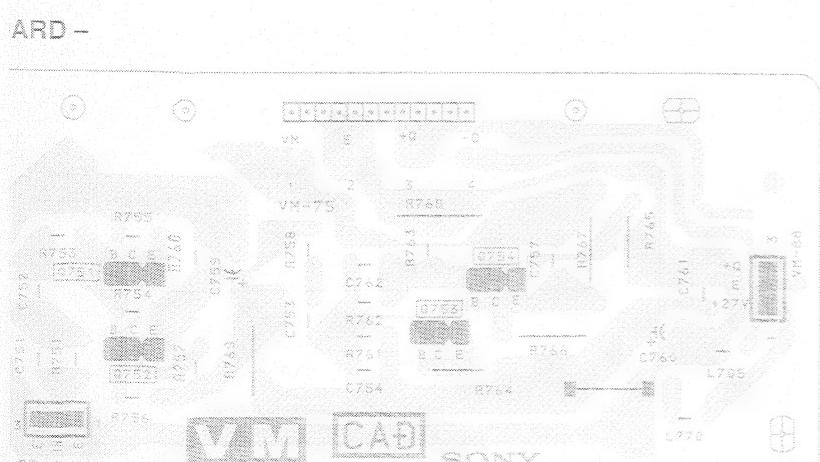
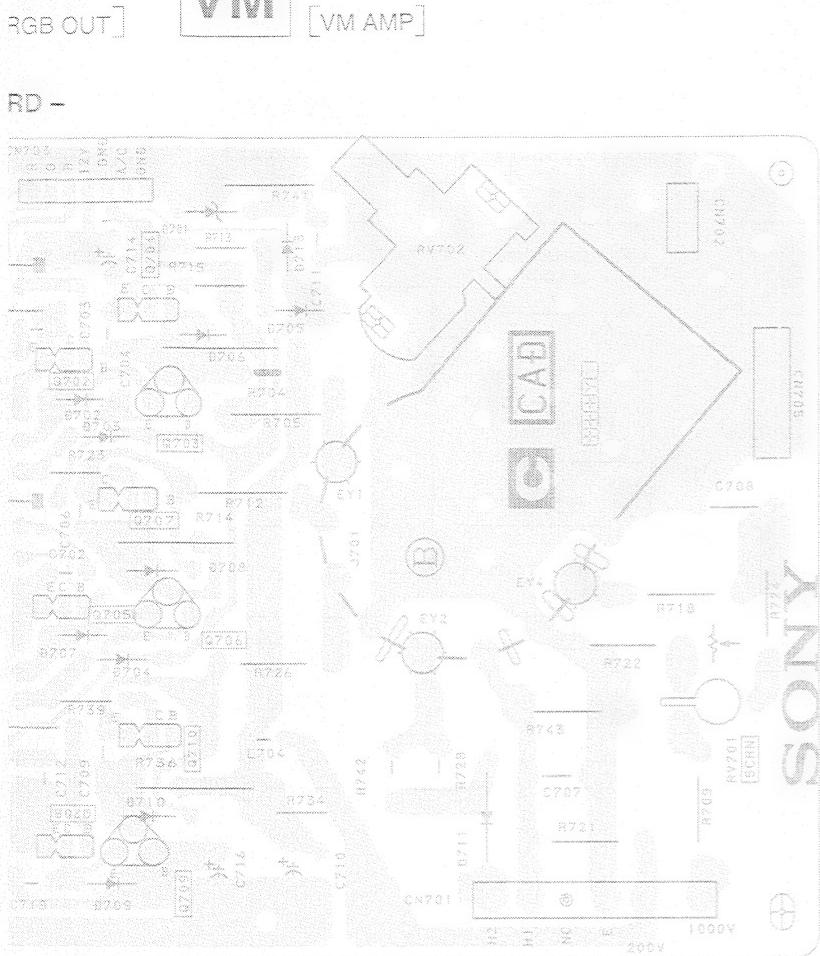
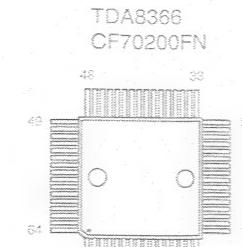
NECK ASSY

- VM BOARD -

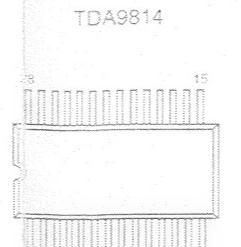
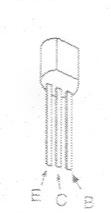
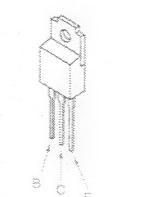
KV-C298

KV-C298

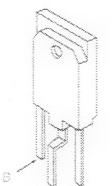
## 5.4 SEMICONDUCTORS

TDA8366  
CF70200FN

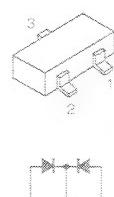
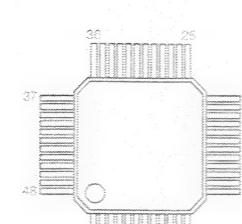
TDA9814

2SA10910  
2SC2551-0  
JA101  
JC501TP2SA1837  
2SC4793

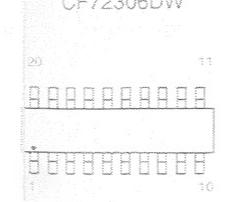
2SC4927-01



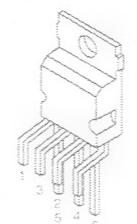
UMZ12N

CXA1855Q  
SAA7283  
CXP85232

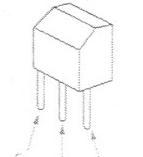
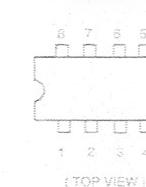
CF72306DW



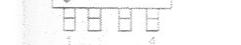
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2SD774-34

LM393  
TDA7264

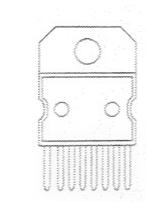
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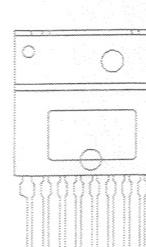
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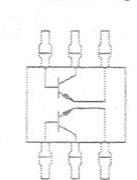
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TDA2822DTC144EK  
DTA144EK  
2SC2412K  
2SA1037-G

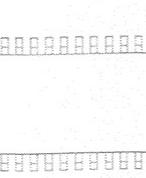
STRS6708

MC7812  
MC7805CT  
LM2940T  
SE135N

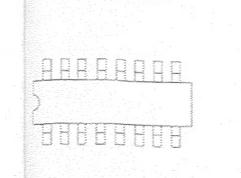
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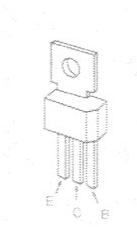
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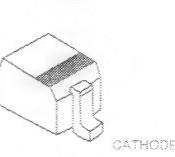
MC14053BF



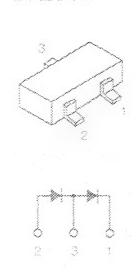
BF871



DTZ3.6A



DA204K



## SECTION 6

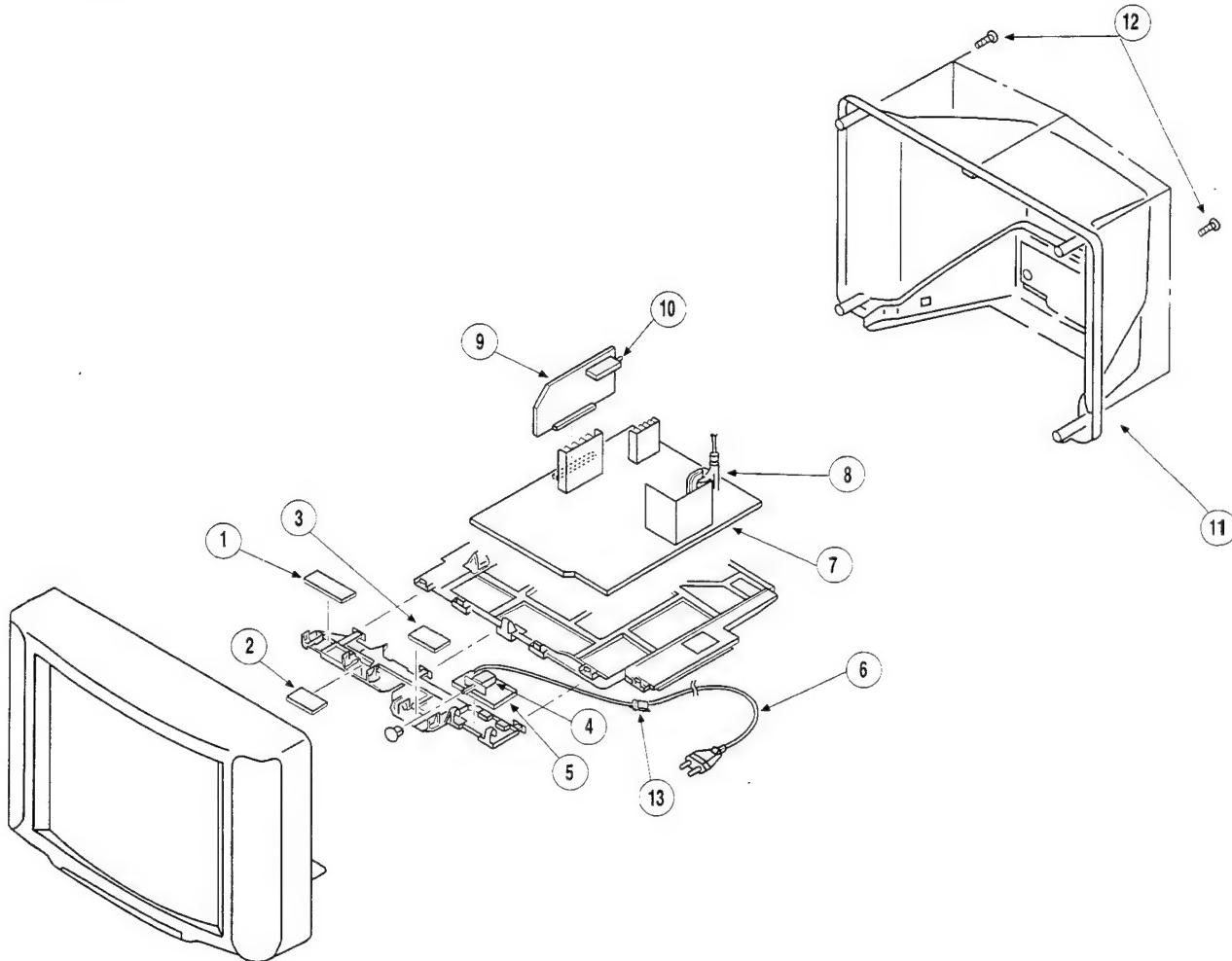
### EXPLODED VIEWS

**NOTE :**

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.

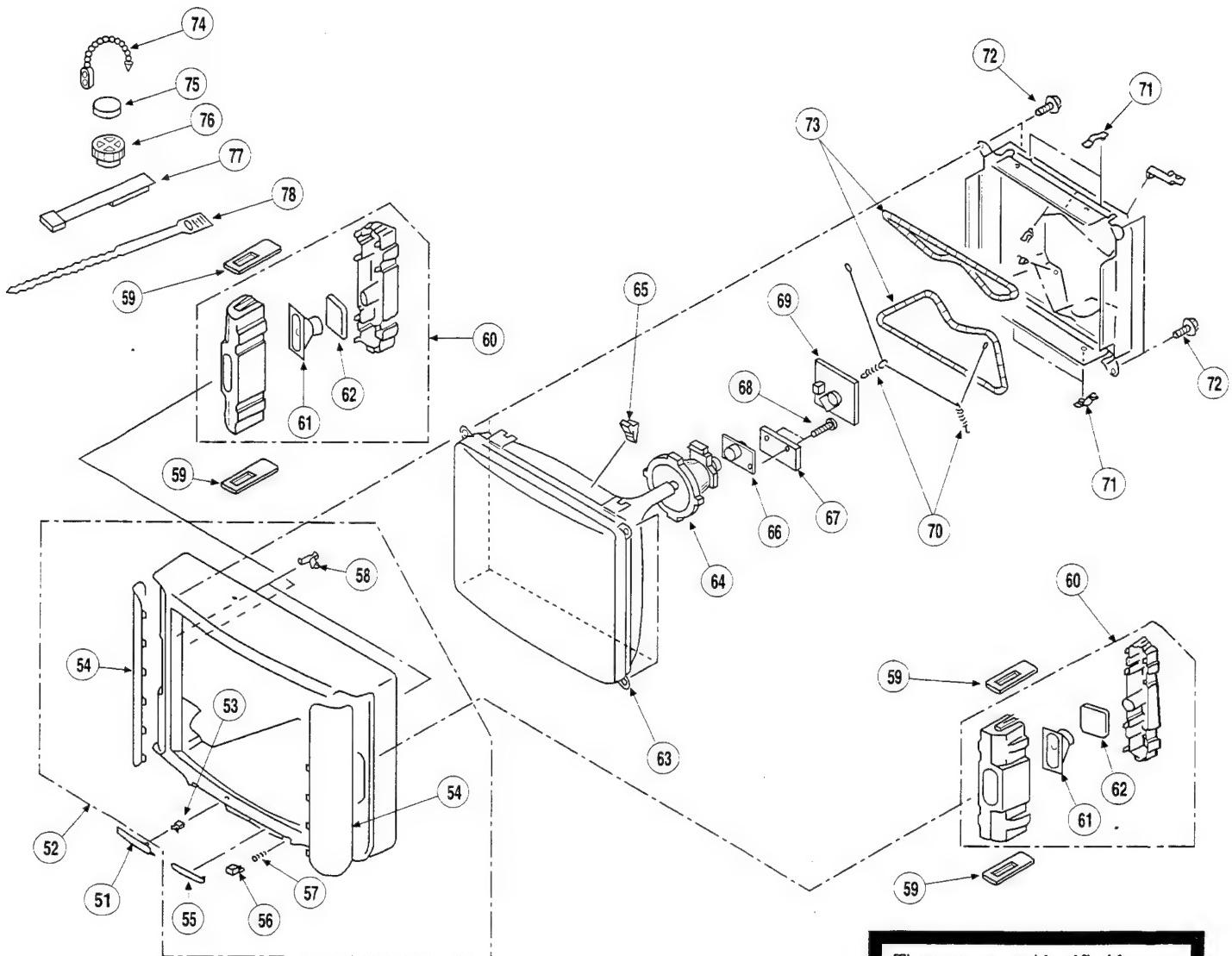
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked ! are critical for safety.  
Replace only with the part number specified.

**6-1. CHASSIS**

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	*1-652-275-11	H1 BOARD		7	*A-1642-125-A	D BOARD, COMPLETE	
2	*1-652-270-11	H3 BOARD		8	△ 1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)	
3	*1-652-269-11	H2 BOARD		9	*A-1632-224-A	A BOARD, COMPLETE (KV-C2981A)	
4	△ 1-571-433-11	SWITCH, PUSH (AC POWER)		*A-1632-213-A	A BOARD, COMPLETE (KV-C2980B)		
5	*1-652-271-12	F1 BOARD		*A-1632-216-A	A BOARD, COMPLETE (KV-C2981D)		
6	△ 1-751-680-11	CORD, POWER (WITH NOISE FILTER) (KV-C2981A/C2981D)		*A-1632-232-A	A BOARD, COMPLETE (KV-C2983E)		
	△ 1-590-460-11	CORD, POWER (WITH CONNECTOR) (KV-C2980B/C2983E)		10	8-598-045-01	TUNER (BTP-EC411)	
				11	4-202-769-01	COVER, REAR	
				12	4-039-358-01	SCREW +BVTP 4X16	
				13	△ 4-389-201-11	HOLDER, AC CORD	

## **6-2. PICTURE TUBE**



The components identified by shading and marked A are critical for safety.  
Replace only with the part number specified.

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
51	4-200-990-51	DOOR		65	3-704-495-01	SPACER, DY	
52	X-4200-167-1	BEZNET ASSY		66	1-452-509-41	NECK ASSY, CRT (NA-308)	
53	4-392-036-01	CATCHER, PUSH	54-58	67	*A-1644-052-A	VM BOARD, COMPLETE	
54	X-4200-099-1	PLATE ASSY, ORNAMENTAL		68	4-039-357-01	SCREW (3X8), (+) BV TAPPING	
55	4-202-774-01	WINDOW, ORNAMENTAL		69	*A-1638-053-A	C BOARD, COMPLETE	
56	4-200-991-11	BUTTON, POWER		70	4-369-318-51	SPRING, TENSION	
57	4-392-112-41	SPRING		71	4-034-296-01	HOLDER, DGC	
58	4-200-992-01	CLIP, CONTACT		72	4-036-188-01	SCREW (M), PT	
59	4-202-307-02	CUSHION, BOX		73	1-402-747-21	COIL, DEGAUSSING	
60	A-1678-048-A	BOX ASSY		74	4-308-870-00	CLIP, LEAD WIRE	
61	1-504-146-11	SPEAKER (5X11CM)		75	1-452-032-00	MAGNET, DISK; 10MM	
62	4-200-999-01	STOPPER		76	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
63	8-733-831-05	PICTURE TUBE SD-191 (A68JYL61X)		77	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
64	8-451-313-61	DEFLECTION YOKE (Y29FXA)		78	3-701-007-00	BAND BINDING	

## ELECTRICAL PARTS LIST

## SECTION 7

The components identified by shading and marked **A** are critical for safety.  
Replace only with the part number specified.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

## CAPACITORS

MF : mF , PF : mmF

## COILS

MMH : mH,  $\mu$ H : mH**F1 A**

## RESISTORS

- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-652-271-11	F1 BOARD *****		C23	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
		< CONNECTOR >		C24	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
CN603 <b>A</b>	*1-580-844-11	PIN, CONNECTOR (POWER)		C30	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
CN604 <b>A</b>	*1-695-292-11	PIN, CONNECTOR (POWER)		C101	1-124-916-11	ELECT 22MF	2% 50V
		< FUSE >			1-124-927-11	ELECT 4.7MF	20% 50V
F601 <b>A</b>	1-576-232-21	FUSE (H.B.C.) 5A/250V					(KV-C2981A/C2981I/C2983E)
	1-533-230-11	HOLDER, FUSE (F601)		C102	1-124-917-11	ELECT 33MF	20% 50V
	4-201-057-01	COVER, FUSE (F601)		C103	1-124-917-11	ELECT 33MF	20% 50V
		< SWITCH >		C104	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
S601 <b>A</b>	1-571-433-11	SWITCH, PUSH (AC POWER)		C105	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
	*****	*****		C106	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-224-A	A BOARD, COMPLETE (KV-C2981A) *****		C107	1-164-346-11	CERAMIC CHIP 1MF	16V
	*A-1632-213-A	A BOARD, COMPLETE (KV-C2980B) *****		C108	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-216-A	A BOARD, COMPLETE (KV-C2981D) *****		C109	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-232-A	A BOARD, COMPLETE (KV-C2983E) *****		C112	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C113	1-124-477-11	ELECT 47MF	20% 16V
				C114	1-164-346-11	CERAMIC CHIP 1MF	16V
				C115	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
				C117	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C118	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
					1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
							(KV-C2981E/C2983E)
							(KV-C2980E/C2981D)
TP1	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		C119	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
		< CAPACITOR >		C120	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C1	1-163-009-11	CERAMIC CHIP 0.001MF	10%	C121	1-124-477-11	ELECT 47MF	20% 16V
C2	1-163-009-11	CERAMIC CHIP 0.001MF	10%	C122	1-124-477-11	ELECT 47MF	20% 16V
C3	1-124-907-11	ELECT 10MF	20%	C123	1-163-090-00	CERAMIC CHIP 7PF	0.15PF 50V
C4	1-164-004-11	CERAMIC CHIP 0.1MF	10%	C124	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C7	1-163-009-11	CERAMIC CHIP 0.001MF	10%	C125	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C8	1-164-232-11	CERAMIC CHIP 0.01MF	10%	C126	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C9	1-163-009-11	CERAMIC CHIP 0.001MF	10%	C127	1-124-917-11	ELECT 33MF	20% 50V
C10	1-163-009-11	CERAMIC CHIP 0.001MF	10%	C128	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C11	1-163-009-11	CERAMIC CHIP 0.001MF	10%	C129	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C12	1-164-004-11	CERAMIC CHIP 0.1MF	10%	C130	1-216-295-91	METAL GLAZE 0 5%	110W
C13	1-126-101-11	ELECT 100MF	20%	C131	1-124-477-11	ELECT 47MF	20% 16V
C15	1-163-105-00	CERAMIC CHIP 33PF	5%	C132	1-124-477-11	ELECT 47MF	20% 16V
C16	1-163-809-11	CERAMIC CHIP 0.047MF	10%	C134	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C17	1-164-004-11	CERAMIC CHIP 0.1MF	10%	C135	1-124-477-11	ELECT 47MF	20% 16V
C18	1-163-117-00	CERAMIC CHIP 100PF	5%	C137	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C19	1-164-232-11	CERAMIC CHIP 0.01MF	10%	C139	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C21	1-163-037-11	CERAMIC CHIP 0.022MF	10%	C142	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C22	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C143	1-126-101-11	ELECT 100MF	20% 16V
							(KV-C2980B)

A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C144	1-162-638-11	CERAMIC CHIP 1MF	16V (KV-C2980B)	C324	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C145	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C325	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C146	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C326	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C149	1-216-295-91	METAL GLAZE 0	5% 1/10W	C327	1-136-165-00	FILM 0.1MF	5% 50V
C152	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C328	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C153	1-164-337-11	CERAMIC CHIP 2.2MF	16V	C329	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C154	1-163-123-00	CERAMIC CHIP 180PF	5% 50V (KV-C2981A/C2981D/C2983E)	C330	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
	1-163-105-00	CERAMIC CHIP 33PF	5% 50V (KV-C2980B)	C331	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V
				C332	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
				C333	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C157	1-163-113-00	CERAMIC CHIP 68PF	5% 50V (KV-C2980B)	C334	1-163-016-00	CERAMIC CHIP 0.0039MF	10% 50V
C160	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C335	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C162	1-163-022-00	CERAMIC CHIP 0.012MF	10% 50V (KV-C2980B)	C336	1-126-101-11	ELECT 100MF	20% 16V
C163	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V (KV-C2980B)	C337	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
C164	1-163-119-00	CERAMIC CHIP 120PF	5% 50V	C338	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C165	1-126-101-11	ELECT 100MF	20% 16V	C339	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C201	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C342	1-124-907-11	ELECT 10MF	20% 50V
C202	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	C346	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C203	1-124-907-11	ELECT 10MF	20% 50V	C347	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C204	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C348	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C205	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C349	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C206	1-164-346-11	CERAMIC CHIP 1MF	16V	C350	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V
C207	1-137-613-11	FILM 0.0018MF	2% 100V	C351	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C208	1-164-346-11	CERAMIC CHIP 1MF	16V	C352	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C209	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C353	1-124-477-11	ELECT 47MF	20% 16V
C210	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C355	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C211	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C361	1-124-907-11	ELECT 10MF	20% 50V
				C362	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
				C363	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
						(KV-C2980B/C2981D)	
C212	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C365	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C215	1-163-023-00	CERAMIC CHIP 0.015MF	10% 50V	C382	1-124-907-11	ELECT 10MF	20% 50V
C216	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	C383	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C219	1-163-023-00	CERAMIC CHIP 0.015MF	10% 50V	C401	1-124-477-11	ELECT 47MF	20% 16V
C220	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	C402	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C221	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	C403	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C222	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	C404	1-124-477-11	ELECT 47MF	20% 16V
C225	1-130-489-00	FILM 0.033MF	5% 50V	C406	1-124-907-11	ELECT 10MF	20% 50V
C226	1-130-489-00	FILM 0.033MF	5% 50V	C407	1-164-346-11	CERAMIC CHIP 1MF	16V
C227	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C409	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C228	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C410	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C229	1-164-346-11	CERAMIC CHIP 1MF	16V	C411	1-124-477-11	ELECT 47MF	20% 16V
C301	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C418	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C305	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C420	1-216-295-91	METAL GLAZE 0	5% 1/10W
C306	1-126-101-11	ELECT 100MF	20% 16V	C421	1-124-917-11	ELECT 33MF	20% 50V
C307	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C422	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C308	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C423	1-124-477-11	ELECT 47MF	20% 16V
C309	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C425	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C310	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C426	1-164-346-11	CERAMIC CHIP 1MF	16V
C311	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C427	1-124-477-11	ELECT 47MF	20% 16V
C312	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C428	1-164-346-11	CERAMIC CHIP 1MF	16V
C313	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C429	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C314	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C430	1-124-477-11	ELECT 47MF	20% 16V
C315	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C431	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C316	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C432	1-124-477-11	ELECT 47MF	20% 16V
C318	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C433	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C320	1-124-477-11	ELECT 47MF	20% 16V	C434	1-164-346-11	CERAMIC CHIP 1MF	16V
C321	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C435	1-126-101-11	ELECT 100MF	20% 16V
C322	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C436	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C323	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C437	1-164-346-11	CERAMIC CHIP 1MF	16V

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK	
C438	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	C1130	1-124-903-11	ELECT 1MF	20% 50V
C445	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C1131	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
		< C1002 - C1034 FITTED ON >			C1132	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
		< KV-C2981A/C2981D/C2983E >			C1133	1-124-477-11	ELECT 47MF	20% 16V
					C1134	1-124-907-11	ELECT 10MF	20% 50V
C1002	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C1135	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C1003	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	C1136	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1004	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	C1137	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C1005	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	C1139	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1007	1-163-125-00	CERAMIC CHIP 220PF	5%	50V				
C1008	1-163-125-00	CERAMIC CHIP 220PF	5%	50V				
C1009	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	CF101	1-760-154-21	TRAP, CERAMIC	
C1011	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	CF102	1-404-134-00	TRAP, CERAMIC (5.5MHZ)	
C1013	1-164-346-11	CERAMIC CHIP 1MF			CF103	1-760-106-21	FILTER, CERAMIC	
C1015	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	CF104	1-567-100-00	FILTER, CERAMIC (KV-C2980B/C2981D)	
					CF106	1-760-107-21	FILTER, CERAMIC	
C1016	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V				
C1018	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	SWF101	1-579-273-11	FILTER, SURFACE WAVE	
C1019	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	SWF102	1-760-329-11	FILTER, SURFACE WAVE (KV-C2981A/C2981D/C2983E)	
C1020	1-124-916-11	ELECT 22MF	20%	50V				
C1021	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V				
					1-760-244-21	FILTER, SURFACE WAVE (KV-C2980B)		
C1024	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V				
C1025	1-124-477-11	ELECT 47MF	20%	16V				
C1026	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	CN001	1-695-302-21	CONNECTOR, BOARD TO BOARD 50P	
C1027	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	CN002	*1-568-882-51	PIN, CONNECTOR 7P	
C1028	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V				
C1029	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D6	8-719-047-41	DIODE UMZ12N-T146	
C1030	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D7	8-719-041-97	DIODE MA113-TX	
C1031	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D9	8-719-041-97	DIODE MA113-TX	
C1032	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D11	8-719-041-97	DIODE MA113-TX	
C1033	1-124-907-11	ELECT 10MF	20%	50V	D12	8-719-049-64	DIODE MA715-TX (KV-C2980B)	
C1034	1-164-346-11	CERAMIC CHIP 1MF		16V				
					D101	8-719-018-13	DIODE MA8330-TX	
		< C1101 - C1139 FITTED ON >			D102	8-719-914-43	DIODE DAN20K (KV-C2980B)	
		< KV-C2980B/C2983E >			D103	8-719-914-43	DIODE DAN20K (KV-C2980B/C2981D)	
					D201	8-719-914-42	DIODE DA204K	
C1101	1-163-131-00	CERAMIC CHIP 390PF	5%	50V	D301	8-719-041-97	DIODE MA113-TX	
C1102	1-163-093-00	CERAMIC CHIP 10PF	5%	50V				
C1103	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D302	8-719-041-97	DIODE MA113-TX	
C1104	1-124-907-11	ELECT 10MF	20%	50V	D303	8-719-041-97	DIODE MA113-TX	
C1105	1-124-907-11	ELECT 10MF	20%	50V	D304	8-719-041-97	DIODE MA113-TX	
					D305	8-719-041-97	DIODE MA113-TX	
C1106	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D314	8-719-047-16	DIODE BAS216	
C1107	1-124-477-11	ELECT 47MF	20%	16V				
C1108	1-124-907-11	ELECT 10MF	20%	50V	D315	8-719-041-97	DIODE MA113-TX	
C1110	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	D380	1-216-295-91	METAL GLAZE 0 5% 1/10W	
C1111	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V	D401	8-719-047-41	DIODE UMZ12N-T146	
					D402	8-719-047-41	DIODE UMZ12N-T146	
C1112	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V	D404	8-719-047-41	DIODE UMZ12N-T146	
C1113	1-163-137-00	CERAMIC CHIP 680PF	5%	50V				
C1116	1-124-477-11	ELECT 47MF	20%	16V	D405	8-719-047-41	DIODE UMZ12N-T146	
C1117	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D406	8-719-047-41	DIODE UMZ12N-T146	
C1118	1-124-477-11	ELECT 47MF	20%	16V	D407	8-719-047-41	DIODE UMZ12N-T146	
					D408	8-719-047-41	DIODE UMZ12N-T146	
C1119	1-124-477-11	ELECT 47MF	20%	16V	D409	8-719-047-41	DIODE UMZ12N-T146	
C1120	1-163-137-00	CERAMIC CHIP 680PF	5%	50V				
C1122	1-124-477-11	ELECT 47MF	20%	16V	D410	8-719-047-41	DIODE UMZ12N-T146	
C1123	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D411	8-719-047-41	DIODE UMZ12N-T146	
C1124	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D1002	8-719-914-43	DIODE DAN20K (KV-C2981A/C2981D/C2983E)	
C1125	1-165-320-11	CERAMIC CHIP 0.47MF	10%	16V				
C1126	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	D1101	8-719-041-97	DIODE MA113-TX (KV-C2980B/C2983E)	
C1127	1-163-117-00	CERAMIC CHIP 100PF	5%	50V				
C1128	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	D1102	8-719-820-71	DIODE 1SV214 (KV-C2980B/C2983E)	
C1129	1-162-568-11	CERAMIC CHIP 0.33MF		25V				

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< IC >							
IC001	8-752-854-74	IC CXP85232-1100-TL		T101	1-403-686-11	COIL	
IC002	8-759-277-89	IC ST24C16CM1-TR/A			< TRANSISTOR >		
IC003	8-759-041-54	IC MN1382S		Q4	8-729-901-01	TRANSISTOR DTC144EK	
IC004	8-759-041-54	IC MN1382S		Q8	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC101	8-759-193-14	IC TDA9814T		Q11	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC201	8-759-252-14	IC TDA6612-5X-GEG		Q12	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC202	8-759-514-57	IC BA7046F		Q13	8-729-920-74	TRANSISTOR 2SC2412K-QR (KV-C2580B)	
IC301	8-759-251-57	IC TDA8366T		Q14	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC302	8-759-086-97	IC TDA4661T/V2		Q102	8-729-104-80	TRANSISTOR 2SC3355	
IC303	8-759-251-56	IC TDA8395T (KV-C2980B/C2981D)		Q103	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B)	
IC401	8-752-069-53	IC CXA1855Q-T6		Q104	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B)	
IC1001	8-759-252-08	IC CF72306DW-R (KV-C2981A/C2981D/C2983E)		Q105	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B)	
IC1002	8-759-275-29	IC CF70205AFN-R (KV-C2981A/C2981D/C2983E)		Q107	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC1003	8-759-300-71	IC HD14053BFP (KV-C2981A/C2981D/C2983E)		Q108	8-729-907-26	TRANSISTOR IMX1	
IC1004	8-759-991-19	IC PST529QMT-T1 (KV-C2981A/C2981D/C2983E)		Q109	8-729-907-26	TRANSISTOR IMX1	
IC1101	8-759-251-58	IC SAA7283T (KV-C2980B/C2983E)		Q114	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q116	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B/C2981D)	
< SOCKET >							
J401	1-766-296-11	CONNECTOR, DUAL SCART		Q125	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B)	
< COIL >							
JR25	1-412-006-31	INDUCTOR CHIP 10UH		Q130	8-729-920-74	TRANSISTOR 2SC2412K-QR	
JR26	1-412-006-31	INDUCTOR CHIP 10UH		Q131	8-729-216-22	TRANSISTOR 2SA1162-G	
JR29	1-412-006-31	INDUCTOR CHIP 10UH		Q132	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q133	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L1	1-412-010-41	INDUCTOR CHIP 22UH		Q134	8-729-900-53	TRANSISTOR DTC114EK	
L100	1-410-989-11	INDUCTOR CHIP 0.47UH		Q304	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L101	1-408-609-41	INDUCTOR 33UH		Q312	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L102	1-410-214-31	INDUCTOR CHIP 68UH		Q313	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L103	1-408-419-00	INDUCTOR 68UH		Q314	8-729-900-53	TRANSISTOR DTC114EK	
L104	1-414-170-11	INDUCTOR CHIP 100UH (KV-C2980B)		Q380	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L105	1-408-411-00	INDUCTOR 15UH (KV-C2981A/C2981D/C2983E)		Q381	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L106	1-408-406-00	INDUCTOR 5.6UH (KV-C2980B)		Q401	8-729-920-74	TRANSISTOR 2SC2412K-QR	
	1-412-011-31	INDUCTOR CHIP 27UH		Q402	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L107	1-410-985-11	INDUCTOR CHIP 0.22UH		Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L108	1-408-408-00	INDUCTOR 8.2UH (KV-C2981A/C2981D/C2983E)		Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L109	1-408-414-00	INDUCTOR 27UH (KV-C2980B)		Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
	1-412-010-41	INDUCTOR CHIP 22UH		Q407	8-729-900-53	TRANSISTOR DTC114EK	
L110	1-412-004-31	INDUCTOR CHIP 6.8UH		Q408	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L111	1-414-170-11	INDUCTOR CHIP 100UH		Q1001	8-729-920-74	TRANSISTOR 2SC2412K-QR (KV-C2981A/C2981D/C2983E)	
L112	1-410-200-31	INDUCTOR CHIP 4.7UH					
L201	1-410-067-21	INDUCTOR 4.7MMH					
L307	1-408-609-41	INDUCTOR 33UH					
L308	1-408-424-00	INDUCTOR 180UH		JR3	1-216-295-91	METAL GLAZE 0 5%	1/10W
L309	1-408-424-00	INDUCTOR 180UH		JR8	1-216-295-91	METAL GLAZE 0 5%	1/10W
L310	1-408-407-00	INDUCTOR 6.8UH		JR9	1-216-295-91	METAL GLAZE 0 5%	1/10W
L313	1-216-295-91	METAL GLAZE 0 5%	1/10W	JR10	1-216-295-91	METAL GLAZE 0 5%	1/10W
L315	1-412-008-11	INDUCTOR CHIP 15UH		JR12	1-216-295-91	METAL GLAZE 0 5%	1/10W
L401	1-410-214-31	INDUCTOR CHIP 68UH		JR13	1-216-295-91	METAL GLAZE 0 5%	1/10W
L1001	1-408-419-00	INDUCTOR 68UH		JR14	1-216-295-91	METAL GLAZE 0 5%	1/10W
L1002	1-408-419-00	INDUCTOR 68UH		JR15	1-216-295-91	METAL GLAZE 0 5%	1/10W
L1003	1-410-999-11	INDUCTOR CHIP 3.3UH		JR16	1-216-295-91	METAL GLAZE 0 5%	1/10W
L1101	1-412-004-31	INDUCTOR CHIP 6.8UH		JR17	1-216-295-91	METAL GLAZE 0 5%	1/10W
				JR18	1-216-295-91	METAL GLAZE 0 5%	1/10W
				JR19	1-216-295-91	METAL GLAZE 0 5%	1/10W
				JR22	1-216-295-91	METAL GLAZE 0 5%	1/10W
				JR24	1-216-295-91	METAL GLAZE 0 5%	1/10W
				JR28	1-216-296-91	METAL GLAZE 0 5%	1/8W

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
JR30	1-216-295-91	METAL GLAZE	0 5% 1/10W	R70	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR31	1-216-295-91	METAL GLAZE	0 5% 1/10W	R71	1-216-081-00	METAL GLAZE	22K 5% 1/10W
JR51	1-216-296-91	METAL GLAZE	0 5% 1/8W	R72	1-216-081-00	METAL GLAZE	22K 5% 1/10W
JR52	1-216-295-91	METAL GLAZE	0 5% 1/10W	R73	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
JR55	1-216-296-91	METAL GLAZE	0 5% 1/8W	R75	1-216-081-00	METAL GLAZE	22K 5% 1/10W
JR56	1-216-296-91	METAL GLAZE	0 5% 1/8W	R76	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR57	1-216-296-91	METAL GLAZE	0 5% 1/8W	R77	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR59	1-216-296-91	METAL GLAZE	0 5% 1/8W	R78	1-216-037-00	METAL GLAZE	330 5% 1/10W
JR60	1-216-296-91	METAL GLAZE	0 5% 1/8W	R79	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR61	1-216-296-91	METAL GLAZE	0 5% 1/8W	R82	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR62	1-216-296-91	METAL GLAZE	0 5% 1/8W	R83	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR65	1-216-296-91	METAL GLAZE	0 5% 1/8W	R84	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR69	1-216-296-91	METAL GLAZE	0 5% 1/8W	R85	1-216-025-00	METAL GLAZE	100 5% 1/10W
JR70	1-216-296-91	METAL GLAZE	0 5% 1/8W	R86	1-216-025-00	METAL GLAZE	100 5% 1/10W
JR71	1-216-296-91	METAL GLAZE	0 5% 1/8W	R87	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR113	1-216-295-91	METAL GLAZE	0 5% 1/10W	R88	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR120	1-216-295-91	METAL GLAZE	0 5% 1/10W	R89	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR122	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D/C2983E)	R90	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR123	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D/C2983E)	R91	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR124	1-216-295-91	METAL GLAZE	0 5% 1/10W	R92	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR125	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D/C2983E)	R93	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR126	1-216-295-91	METAL GLAZE	0 5% 1/10W	R94	1-216-039-00	METAL GLAZE	390 5% 1/10W
JR201	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D)	R95	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR202	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D)	R96	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
JR401	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2980B)	R97	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR402	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2980B)	R99	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR403	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2980B)	R101	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
JR408	1-216-295-91	METAL GLAZE	0 5% 1/10W	R103	1-216-679-11	METAL CHIP	15K 0.50% 1/10W
JR1004	1-216-295-91	METAL GLAZE	0 5% 1/10W	R104	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-C2980B)	R105	1-216-025-00	METAL GLAZE	100 5% 1/10W
R6	1-216-025-00	METAL GLAZE	100 5% 1/10W	R106	1-216-025-00	METAL GLAZE	100 5% 1/10W
R16	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-C2980B)	R107	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R21	1-216-033-00	METAL GLAZE	220 5% 1/10W	R108	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R24	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R109	1-216-180-00	METAL GLAZE	180 5% 1/8W
R25	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R110	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R26	1-216-025-00	METAL GLAZE	100 5% 1/10W	R111	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R27	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R112	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R29	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R113	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R31	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R114	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R33	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R115	1-218-755-11	METAL CHIP	130K 0.50% 1/10W
R35	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R116	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R44	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R117	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R46	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R118	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R47	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R119	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R49	1-216-025-00	METAL GLAZE	100 5% 1/10W	R120	1-216-035-00	METAL GLAZE	270 5% 1/10W
R50	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R121	1-216-035-00	METAL GLAZE	270 5% 1/10W
R54	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R122	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R59	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R123	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R60	1-216-025-00	METAL GLAZE	100 5% 1/10W	R124	1-216-039-00	METAL GLAZE	390 5% 1/10W
R61	1-216-025-00	METAL GLAZE	100 5% 1/10W	R125	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R66	1-216-033-00	METAL GLAZE	220 5% 1/10W	R126	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
				R127	1-216-041-00	METAL GLAZE	470 5% 1/10W
				R128	1-216-043-00	METAL GLAZE	560 5% 1/10W
				R130	1-216-043-00	METAL GLAZE	560 5% 1/10W
				R131	1-216-043-00	METAL GLAZE	560 5% 1/10W
				R134	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-C2980B/C2981D)
				R135	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-C2980B/C2981D)
				R136	1-216-081-00	METAL GLAZE	22K 5% 1/10W

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REF.NO.	PART NO.	DESCRIPTION			REMARK	REF.NO.	PART NO.	DESCRIPTION			REMARK
R137	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R211	1-216-025-00	METAL GLAZE	100	5%	1/10W
R139	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R213	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R140	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R216	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R141	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R217	1-216-031-00	METAL GLAZE	180	5%	1/10W
R142	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R219	1-216-025-00	METAL GLAZE	100	5%	1/10W
R143	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W (KV-C2980B/C2981D)	R221	1-216-025-00	METAL GLAZE	100	5%	1/10W
R144	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	R222	1-216-025-00	METAL GLAZE	100	5%	1/10W
R145	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	R223	1-216-029-00	METAL GLAZE	150	5%	1/10W
R146	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R224	1-216-025-00	METAL GLAZE	100	5%	1/10W
R147	1-216-033-00	METAL GLAZE	220	5%	1/10W (KV-C2981A/C2981D/C2983E)	R305	1-216-049-00	METAL GLAZE	1K	5%	1/10W
	1-216-031-00	METAL GLAZE	180	5%	1/10W (KV-C2980B)	R308	1-216-025-00	METAL GLAZE	100	5%	1/10W
R148	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R309	1-216-025-00	METAL GLAZE	100	5%	1/10W
R149	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R311	1-216-025-00	METAL GLAZE	100	5%	1/10W
R150	1-216-295-91	METAL GLAZE	0	5%	1/10W (KV-C2980B)	R313	1-216-025-00	METAL GLAZE	100	5%	1/10W
R151	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R315	1-216-025-00	METAL GLAZE	100	5%	1/10W
R153	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R316	1-216-025-00	METAL GLAZE	100	5%	1/10W
R154	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	R317	1-216-025-00	METAL GLAZE	100	5%	1/10W
R155	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R318	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R156	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R319	1-216-025-00	METAL GLAZE	100	5%	1/10W
R157	1-216-295-91	METAL GLAZE	0	5%	1/10W	R320	1-216-025-00	METAL GLAZE	100	5%	1/10W
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R321	1-216-025-00	METAL GLAZE	100	5%	1/10W
R161	1-216-031-00	METAL GLAZE	180	5%	1/10W	R322	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R162	1-216-017-00	METAL GLAZE	47	5%	1/10W	R323	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R163	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R325	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R164	1-216-025-00	METAL GLAZE	100	5%	1/10W	R326	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R165	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R327	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R166	1-216-097-00	METAL GLAZE	100K	5%	1/10W	R328	1-216-025-00	METAL GLAZE	100	5%	1/10W
R170	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R329	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R171	1-216-035-00	METAL GLAZE	270	5%	1/10W	R330	1-216-033-00	METAL GLAZE	220	5%	1/10W
R172	1-216-295-91	METAL GLAZE	0	5%	1/10W	R331	1-216-033-00	METAL GLAZE	220	5%	1/10W
R173	1-216-035-00	METAL GLAZE	270	5%	1/10W	R332	1-216-033-00	METAL GLAZE	220	5%	1/10W
R174	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	R333	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R180	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R340	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R182	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R341	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R183	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	R342	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R185	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	R352	1-216-123-11	METAL GLAZE	1.2M	5%	1/10W
R186	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	R354	1-216-025-00	METAL GLAZE	100	5%	1/10W
R193	1-216-049-00	METAL GLAZE	1K	5%	1/10W (KV-C2980B)	R355	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R194	1-216-180-00	METAL GLAZE	180	5%	1/8W	R356	1-216-025-00	METAL GLAZE	100	5%	1/10W
R195	1-216-113-00	METAL GLAZE	470K	5%	1/10W	R364	1-216-041-00	METAL GLAZE	470	5%	1/10W
R196	1-216-017-00	METAL GLAZE	47	5%	1/10W	R365	1-216-027-00	METAL GLAZE	120	5%	1/10W
R197	1-216-041-00	METAL GLAZE	470	5%	1/10W	R368	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W (KV-C2981A/C2981D/C2983E)
R198	1-216-029-00	METAL GLAZE	150	5%	1/10W	R370	1-216-033-00	METAL GLAZE	220	5%	1/10W
R199	1-216-039-00	METAL GLAZE	390	5%	1/10W (KV-C2981A/C2981D/C2983E)	R371	1-216-033-00	METAL GLAZE	220	5%	1/10W
	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W (KV-C2980B)	R372	1-216-033-00	METAL GLAZE	220	5%	1/10W
R200	1-216-047-00	METAL GLAZE	820	5%	1/10W	R373	1-216-041-00	METAL GLAZE	470	5%	1/10W
R201	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	R380	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R202	1-216-091-00	METAL GLAZE	56K	5%	1/10W	R381	1-216-025-00	METAL GLAZE	100	5%	1/10W
R203	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	R382	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R204	1-216-025-00	METAL GLAZE	100	5%	1/10W	R383	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R205	1-216-025-00	METAL GLAZE	100	5%	1/10W	R384	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R206	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R385	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R207	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R386	1-216-041-00	METAL GLAZE	470	5%	1/10W
R210	1-216-025-00	METAL GLAZE	100	5%	1/10W	R387	1-216-041-00	METAL GLAZE	470	5%	1/10W
						R388	1-216-041-00	METAL GLAZE	470	5%	1/10W
						R389	1-216-041-00	METAL GLAZE	470	5%	1/10W
						R390	1-216-089-91	METAL GLAZE	47K	5%	1/10W
						R392	1-216-091-00	METAL GLAZE	56K	5%	1/10W
						R393	1-216-089-91	METAL GLAZE	47K	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R401	1-216-039-00	METAL GLAZE	390 5% 1/10W	R492	1-216-295-91	METAL GLAZE 0	5% 1/10W
R402	1-216-089-91	METAL GLAZE	47K 5% 1/10W			< R1001 - R1029 FITTED ON >	
R403	1-216-039-00	METAL GLAZE	390 5% 1/10W			< KV-C2981A/C2981D/C2983E >	
R404	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1001	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R405	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1002	1-216-025-00	METAL GLAZE 100	5% 1/10W
R406	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1004	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R407	1-216-198-91	METAL GLAZE	1K 5% 1/8W	R1005	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R408	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1008	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R409	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1009	1-216-025-00	METAL GLAZE 100	5% 1/10W
R410	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1010	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R413	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1011	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R415	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1012	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R417	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1014	1-216-025-00	METAL GLAZE 100	5% 1/10W
R419	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1015	1-216-025-00	METAL GLAZE 100	5% 1/10W
R420	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1016	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R421	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1025	1-216-033-00	METAL GLAZE 220	5% 1/10W
R422	1-216-022-00	METAL GLAZE	75 5% 1/10W	R1026	1-216-033-00	METAL GLAZE 220	5% 1/10W
R423	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R1027	1-216-033-00	METAL GLAZE 220	5% 1/10W
R424	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1029	1-216-025-00	METAL GLAZE 100	5% 1/10W
R425	1-216-022-00	METAL GLAZE	75 5% 1/10W			< R1101 - R1118 FITTED ON >	
R426	1-216-025-00	METAL GLAZE	100 5% 1/10W			< KV-C2980B/C2983E >	
R427	1-216-188-00	METAL GLAZE	390 5% 1/8W	R1101	1-216-025-00	METAL GLAZE 100	5% 1/10W
R429	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1102	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R430	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1103	1-220-149-11	METAL GLAZE 2.2	10% 1/2W
R431	1-216-188-00	METAL GLAZE	390 5% 1/8W	R1104	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R432	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1105	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R433	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1106	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R434	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1107	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R435	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1108	1-216-121-00	METAL GLAZE 1M	5% 1/10W
R436	1-216-022-00	METAL GLAZE	75 5% 1/10W	R1109	1-216-121-00	METAL GLAZE 1M	5% 1/10W
R437	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1110	1-220-238-11	METAL GLAZE 10	5% 1/4W
R438	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1111	1-216-025-00	METAL GLAZE 100	5% 1/10W
R439	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1112	1-216-025-00	METAL GLAZE 100	5% 1/10W
R440	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1113	1-216-117-00	METAL GLAZE 680K	5% 1/10W
R441	1-216-022-00	METAL GLAZE	75 5% 1/10W	R1114	1-216-158-00	METAL GLAZE 22	5% 1/8W
R442	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1115	1-216-121-00	METAL GLAZE 1M	5% 1/10W
R443	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1116	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R444	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1117	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R445	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1118	1-220-149-11	METAL GLAZE 2.2	10% 1/2W
R446	1-216-025-00	METAL GLAZE	100 5% 1/10W			< RESISTOR NETWORK >	
R447	1-216-025-00	METAL GLAZE	100 5% 1/10W	RA1	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R448	1-216-073-00	METAL GLAZE	10K 5% 1/10W	RA2	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R449	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	RA3	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R454	1-216-089-91	METAL GLAZE	47K 5% 1/10W	RA7	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R458	1-216-049-00	METAL GLAZE	1K 5% 1/10W	RA8	1-239-412-11	NETWORK, RESISTOR (CHIP TYPE)	
R461	1-216-022-00	METAL GLAZE	75 5% 1/10W	RA9	1-239-412-11	NETWORK, RESISTOR (CHIP TYPE)	
R464	1-216-034-00	METAL GLAZE	240 5% 1/10W	RA10	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R465	1-216-025-00	METAL GLAZE	100 5% 1/10W	RA11	1-236-904-11	RESISTOR, NETWORK (CHIP TYPE)	
R473	1-216-022-00	METAL GLAZE	75 5% 1/10W			< VARIABLE RESISTOR >	
R474	1-216-049-00	METAL GLAZE	1K 5% 1/10W	RV102	1-241-765-11	RES, ADJ CARBON 22K (KV-C2980B)	
R482	1-216-073-00	METAL GLAZE	10K 5% 1/10W			< TUNER >	
R483	1-216-029-00	METAL GLAZE	150 5% 1/10W	TU101	8-598-045-01	TUNER (BTP-EC411)	
R484	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R485	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R486	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R487	1-216-022-00	METAL GLAZE	75 5% 1/10W				
R488	1-216-022-00	METAL GLAZE	75 5% 1/10W				
R489	1-216-022-00	METAL GLAZE	75 5% 1/10W				
R490	1-216-295-91	METAL GLAZE	0 5% 1/10W				
R491	1-216-295-91	METAL GLAZE	0 5% 1/10W				

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The components identified by shading and marked \* are critical for safety.  
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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK					
< CRYSTAL >												
X2	1-579-063-21	VIBRATOR, CERAMIC		Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE						
X301	1-760-331-11	VIBRATOR, CRYSTAL		Q709	8-729-906-70	TRANSISTOR BF871						
X1001	1-567-495-11	OSCILLATOR, CRYSTAL (KV-C2981A/C2981D/C2983E)		Q710	8-729-200-17	TRANSISTOR 2SA1091-0						
X1101	1-579-689-21	VIBRATOR, CRYSTAL (KV-C2980B/C2983E)		< RESISTOR >								
*****												
*A-1638-053-A C BOARD, COMPLETE *****												
< CAPACITOR >												
C702	1-102-824-00	CERAMIC	470PF	5%	50V	R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
C703	1-102-115-00	CERAMIC	560PF	10%	50V	R705	1-202-822-00	SOLID	2.2K	10%	1/2W	
C704	1-102-116-00	CERAMIC	680PF	10%	50V	R706	1-249-409-11	CARBON	220	5%	1/4W	
C706	1-102-113-00	CERAMIC	390PF	10%	50V	R707	1-249-408-11	CARBON	180	5%	1/4W	
C706	1-102-822-00	CERAMIC	390PF	5%	50V	R709	1-202-844-00	SOLID	330K	10%	1/2W	
C707	1-162-116-00	CERAMIC	680PF	10%	2KV	R711	1-249-421-11	CARBON	2.2K	5%	1/4W	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV	R712	1-202-822-00	SOLID	2.2K	10%	1/2W	
C709	1-102-114-00	CERAMIC	470PF	10%	50V	R713	1-215-493-00	METAL	1M	1%	1/4W	
C710	1-123-947-00	ELECT	10MF	20%	250V	R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
C712	1-102-115-00	CERAMIC	560PF	10%	50V	R715	1-249-417-11	CARBON	1K	5%	1/4W	
C714	1-124-360-00	ELECT	1000MF	20%	16V	R716	1-249-409-11	CARBON	220	5%	1/4W	
C717	1-102-114-00	CERAMIC	470PF	10%	50V	R717	1-249-408-11	CARBON	180	5%	1/4W	
C718	1-102-114-00	CERAMIC	470PF	10%	50V	R718	1-202-814-11	SOLID	33K	10%	1/2W	
C719	1-102-114-00	CERAMIC	470PF	10%	50V	R720	1-249-421-11	CARBON	2.2K	5%	1/4W	
< CONNECTOR >												
CN702	1-695-915-11	TAB (CONTACT)		R722	1-202-848-00	SOLID	680K	10%	1/2W			
CN703	*1-568-882-51	PIN, CONNECTOR 7P		R723	1-249-417-11	CARBON	1K	5%	1/4W			
< DIODE >												
D701	8-719-110-14	DIODE RD9.1ESB3		R724	1-202-846-00	SOLID	470K	10%	1/2W			
D702	8-719-901-33	DIODE 1SS133		R726	1-202-822-00	SOLID	2.2K	10%	1/2W			
D703	8-719-901-33	DIODE 1SS133		R727	1-249-409-11	CARBON	220	5%	1/4W			
D704	8-719-901-33	DIODE 1SS133		R728	1-216-350-21	METAL OXIDE	1.2	5%	1W	F		
D705	8-719-901-33	DIODE 1SS133		R729	1-249-408-11	CARBON	180	5%	1/4W			
D706	8-719-901-33	DIODE 1SS133		R731	1-249-421-11	CARBON	2.2K	5%	1/4W			
D707	8-719-901-33	DIODE 1SS133		R732	1-215-479-00	METAL	270K	1%	1/4W			
D708	8-719-901-33	DIODE 1SS133		R734	1-247-807-31	CARBON	100	5%	1/4W			
D709	8-719-901-33	DIODE 1SS133		R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F		
D710	8-719-901-33	DIODE 1SS133		R737	1-215-485-00	METAL	470K	1%	1/4W			
D711	8-719-302-43	DIODE EL1Z		R739	1-249-417-11	CARBON	1K	5%	1/4W			
D713	8-719-901-33	DIODE 1SS133		R741	1-202-549-00	SOLID	100	20%	1/2W			
< CRT SOCKET >												
J701 A	1-526-990-21	SOCKET, CRT		R743	1-202-842-11	SOLID	220K	10%	1/2W			
< COIL >												
L704	1-408-609-41	INDUCTOR	33UH	< VARIABLE RESISTOR >								
< TRANSISTOR >												
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE		RV701	1-230-641-11	RES, ADJ, METAL GLAZE	2.2M					
Q703	8-729-906-70	TRANSISTOR BF871		RV702	1-241-656-11	RES, ADJ, METAL FILM	110M					
Q704	8-729-200-17	TRANSISTOR 2SA1091-0		*****								
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE		*A-1642-125-A COMPLETE PCB, D *****								
Q706	8-729-906-70	TRANSISTOR BF871		4-201-023-01 SPACER, INSULATING 4-202-373-01 SPRING, IC 4-812-134-00 RIVET NYLON, 3.5								
Q707	8-729-200-17	TRANSISTOR 2SA1091-0		< CAPACITOR >								
C502												
C503												
C504												
C506												
C507												
C509												
C510												
C511												
C513												
C514												
C515												
C517												
C518												

D

The components identified by shading and marked ▲ are critical for safety.  
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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK				
C519	1-102-228-00	CERAMIC	470PF	10%	500V	C821	1-162-114-00	CERAMIC	0.0047MF	2KV	
C520	1-124-480-11	ELECT	470MF	20%	25V	C822	1-123-948-00	ELECT	22MF	20%	250V
C521	1-124-006-11	ELECT	10MF	20%	25V	C824	1-123-024-21	ELECT	33MF	160V	
C522	1-124-907-11	ELECT	10MF	20%	50V	C829	1-124-902-00	ELECT	0.47MF	20%	50V
C523	1-136-165-00	FILM	0.1MF	5%	50V	C830	1-124-902-00	ELECT	0.47MF	20%	50V
C600	▲ 1-164-503-61	CERAMIC	0.0022MF	20%	400V	C832	1-124-903-11	ELECT	1MF	20%	50V
C601	▲ 1-161-964-91	CERAMIC	0.0047MF		250V	C834	1-126-233-11	ELECT	22MF	20%	25V
C602	▲ 1-161-964-91	CERAMIC	0.0047MF		250V	C835	1-162-318-11	CERAMIC	0.001MF	10%	500V
C603	1-125-318-00	ELECT(BLOCK)	220MF	20%	400V	C836	1-162-117-00	CERAMIC	100PF	10%	500V
C604	1-124-122-11	ELECT	100MF	20%	50V	C838	1-102-228-00	CERAMIC	470PF	10%	500V
C605	1-124-667-11	ELECT	10MF	20%	100V	C839	1-161-744-00	CERAMIC	0.01MF	250V	
C606	1-162-318-11	CERAMIC	0.0001MF	10%	500V	C906	1-124-910-11	ELECT	47MF	20%	50V
C607	1-124-120-11	ELECT	220MF	20%	25V	C908	1-124-910-11	ELECT	47MF	20%	50V
C608	1-109-880-11	FILM	0.0015MF	3%	2KV	C909	1-124-903-11	ELECT	1MF	20%	50V
C611	1-102-228-00	CERAMIC	470PF	10%	500V	C910	1-137-393-91	FILM	0.01MF	5%	100V
C612	1-104-799-11	ELECT	22MF	20%	100V	C1200	1-136-165-00	FILM	0.1MF	5%	50V
C613	1-124-347-00	ELECT	100MF	20%	160V	C1201	1-136-165-00	FILM	0.1MF	5%	50V
C614	1-126-804-11	ELECT	100MF	20%	25V	C1202	1-136-165-00	FILM	0.1MF	5%	50V
C615	1-126-376-11	ELECT	47MF	20%	25V	C1203	1-136-169-00	FILM	0.22MF	5%	50V
C616	1-128-386-11	ELECT	1000MF	20%	25V	C1204	1-136-169-00	FILM	0.22MF	5%	50V
C617	1-126-183-11	ELECT	1000MF	20%	16V	C1205	1-101-005-00	CERAMIC	0.022MF	50V	
C618	1-136-165-00	FILM	0.1MF	5%	50V	C1206	1-101-005-00	CERAMIC	0.022MF	50V	
C619	1-102-228-00	CERAMIC	470PF	10%	500V	C1207	1-126-101-11	ELECT	100MF	20%	15V
C620	1-102-228-00	CERAMIC	470PF	10%	500V	C1208	1-124-927-11	ELECT	4.7MF	20%	50V
C621	1-136-165-00	FILM	0.1MF	5%	50V	C1209	1-124-927-11	ELECT	4.7MF	20%	50V
C622	1-104-797-11	ELECT	0.47MF	20%	100V	C1210	1-124-925-11	ELECT	2.2MF	20%	50V
C623	1-124-120-11	ELECT	220MF	20%	25V	C1211	1-124-925-11	ELECT	2.2MF	20%	50V
C624	1-136-165-00	FILM	0.1MF	5%	50V	C1214	1-126-101-11	ELECT	100MF	20%	15V
C625	1-124-910-11	ELECT	47MF	20%	50V	C1215	1-136-173-00	FILM	0.47MF	5%	50V
C626	1-124-120-11	ELECT	220MF	20%	25V	C1216	1-137-366-11	FILM	0.0022MF	5%	50V
C627	1-124-120-11	ELECT	220MF	20%	25V	C1217	1-137-366-11	FILM	0.0022MF	5%	50V
C628	1-124-907-11	ELECT	10MF	20%	50V	C1218	1-124-120-11	ELECT	220MF	20%	15V
C629	1-126-800-51	ELECT	2200MF	20%	25V	< CONNECTOR >					
C630	1-126-800-51	ELECT	2200MF	20%	25V	CN600	▲ 1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
C631	1-124-916-11	ELECT	22MF	20%	50V	CN601	▲ 1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
C632	1-124-120-11	ELECT	220MF	20%	25V	CN602	▲ *1-695-292-11	PIN, CONNECTOR (POWER)			
C633	▲ 1-107-564-11	FILM	0.22MF	20%	300V	CN800	*1-580-798-11	CONNECTOR PIN (DY) 6P			
C634	▲ 1-107-564-11	FILM	0.22MF	20%	300V	CN803	1-695-915-11	TAB (CONTACT)			
C635	▲ 1-107-564-11	FILM	0.22MF	20%	300V	CN804	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P			
C636	▲ 1-164-503-61	CERAMIC	0.0022MF	20%	400V	CN807	1-568-878-51	PIN, CONNECTOR 3P			
C639	1-136-165-00	FILM	0.1MF	5%	50V	CN901	*1-564-520-11	PLUG, CONNECTOR 5P			
C640	1-106-220-00	MYLAR	0.1MF	10%	100V	CN902	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P			
C647	1-162-116-00	CERAMIC	680PF	10%	2KV	CN903	*1-564-516-11	PLUG, CONNECTOR 13P			
C800	1-137-437-11	FILM	0.0056MF	5%	50V	CN904	*1-564-509-11	PLUG, CONNECTOR 6P			
C801	1-136-153-00	FILM	0.01MF	5%	50V	CN904	*1-568-881-51	PIN, CONNECTOR 6P			
C804	1-136-165-00	FILM	0.1MF	5%	50V	CN905	*1-564-506-11	PLUG, CONNECTOR 3P			
C805	1-106-395-00	MYLAR	0.15MF	10%	200V	CN905	*1-568-878-51	PIN, CONNECTOR 3P			
C806	1-108-704-11	MYLAR	0.1MF	10%	200V	CN1200	*1-568-879-11	PIN, CONNECTOR 4P			
C807	1-136-540-11	FILM	0.82MF	5%	200V	CN1201	*1-568-878-51	PIN, CONNECTOR 3P			
C810	1-124-634-11	ELECT	1MF	20%	250V	< DIODE >					
C811	1-102-212-00	CERAMIC	820PF	10%	500V	D500	8-719-109-85	DIODE RD5.1ESB2			
C812	1-136-112-00	FILM	1.4MF	5%	200V	D502	8-719-979-85	DIODE EGP20G			
C813	1-129-722-00	FILM	0.047MF	10%	630V	D503	8-719-979-85	DIODE EGP20G			
C814	1-136-591-11	FILM	0.017MF	3%	1.4KV	D504	8-719-901-33	DIODE 1SS133			
C815	1-136-562-11	MYLAR	0.0082MF	10%	400V	D505	8-719-982-03	DIODE MTZJ-3.6A			
C816	1-161-754-00	CERAMIC	0.001MF	10%	2KV	D506	8-719-901-33	DIODE 1SS133			
C817	1-161-754-00	CERAMIC	0.001MF	10%	2KV	D507	8-719-109-85	DIODE RD5.1ESB2			
C818	1-162-116-00	CERAMIC	680PF	10%	2KV	D600	8-719-510-53	DIODE D4SB60L			
C819	1-136-208-11	FILM	0.068MF	10%	250V						
C820	1-102-114-00	CERAMIC	470PF	10%	50V						

**D**

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D601	8-719-046-77	DIODE EM1-V1		IC1201	8-759-502-21	IC TDA2822M	
D603	8-719-109-97	DIODE RD6.8ESB2					
D604	8-719-046-75	DIODE EU-1-V1					
D605	8-719-312-61	DIODE EU-1Z		JW150	1-408-113-00	INDUCTOR	4.7UH
D606	8-719-312-61	DIODE EU-1Z		L502	1-412-519-11	INDUCTOR	3.3UH
D607	8-719-046-78	DIODE EG-1Z-V1		L503	1-412-519-11	INDUCTOR	3.3UH
D608	8-719-046-75	DIODE EU-1-V1		L609	1-412-533-21	INDUCTOR	47UH
D609	8-719-301-64	DIODE RU4DS		L611	1-412-527-11	INDUCTOR	15UH
D610	8-719-046-74	DIODE AU-01Z-V1		L612	1-414-415-11	INDUCTOR, WIDE BAND	
D611	8-719-302-43	DIODE EL1Z		L613	1-414-415-11	INDUCTOR, WIDE BAND	
D612	8-719-046-76	DIODE RU-3YX-V1		L800	1-459-087-00	COIL, HCC DUST CORE 3.9MMH	
D613	8-719-302-43	DIODE EL1Z		L801	1-459-111-00	COIL, DRAM CORE (CDI)	
D614	8-719-045-48	DIODE FML-G12S		L802	1-459-104-00	COIL, WITH CORE	
D615	8-719-046-75	DIODE EU-1-V1		L803	1-420-872-00	COIL, AIR CORE	
D616	8-719-110-03	DIODE RD7.5ESB2		L804	1-409-771-11	COIL, HORIZONTAL LINEARITY	
D617	8-719-901-33	DIODE 1SS133		L805	1-406-675-11	COIL, CHOKE 4.7MMH	
D618	8-719-901-33	DIODE 1SS133		L809	1-412-533-21	INDUCTOR	47UH
D619	8-719-901-33	DIODE 1SS133					
D620	8-719-901-33	DIODE 1SS133					
D622	8-719-921-69	DIODE MTZJ-9.1					
D625	8-719-901-33	DIODE 1SS133		PS600	▲ 1-532-686-21	LINK, IC 2.7A (ICP-N50)	
D626	8-719-046-74	DIODE AU-01Z-V1		PS601	▲ 1-532-686-21	LINK, IC 2.7A (ICP-N50)	
D800	8-719-901-33	DIODE 1SS133		PS602	▲ 1-532-686-21	LINK, IC 2.7A (ICP-N50)	
D801	8-719-901-33	DIODE 1SS133		PS603	▲ 1-532-686-21	LINK, IC 2.7A (ICP-N50)	
D802	8-719-901-33	DIODE 1SS133		PS801	▲ 1-532-605-91	LINK, IC 0.4A (ICP-N10)	
D803	8-719-908-03	DIODE GP08D					
D807	8-719-302-43	DIODE EL1Z					
D808	8-719-908-03	DIODE GP08D					
D809	8-719-018-82	DIODE RGP02-20EL-6494					
D810	8-719-302-43	DIODE EL1Z					
D812	8-719-038-49	DIODE FMS-3FU-LF027-103					
D815	8-719-908-03	DIODE GP08D					
D817	8-719-109-89	DIODE RD5.6ESB2					
D902	8-719-921-69	DIODE MTZJ-9.1					
D903	8-719-921-69	DIODE MTZJ-9.1					
D904	8-719-921-69	DIODE MTZJ-9.1					
D905	8-719-921-69	DIODE MTZJ-9.1					
D906	8-719-921-69	DIODE MTZJ-9.1					
D1201	8-719-109-72	DIODE RD-3.9ESB2					
			< FERRITE BEAD >				
FB600	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH					
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH					
FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH					
FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH					
FB605	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH					
FB606	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH					
FB607	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH					
			< IC >				
IC500	8-759-192-71	IC STV9379					
IC600	8-759-183-88	IC STR-S6708					
IC601	▲ 8-749-924-92	IC TLP6212GB					
IC602	8-749-923-26	IC SE135N-F12					
IC603	8-759-171-05	IC UPC7805H					
IC604	8-759-250-63	IC TL750L05CLPR					
IC605	8-759-701-79	IC NJM7812FA					
IC606	8-759-267-25	IC LM2940T-90					
IC800	8-759-103-93	IC UPC393C					
IC1200	8-759-250-68	IC TDA7264					
			< RESISTOR >				
R500	1-215-457-00	METAL	33K	1%	1/4W		
R502	1-249-421-11	CARBON	2.2K	5%	1/4W		
R503	1-249-429-11	CARBON	10K	5%	1/4W		
R504	1-215-459-00	METAL	39K	1%	1/4W		
R505	1-249-382-11	CARBON	1.2	5%	1/4W	F	
R506	1-215-447-00	METAL	12K	1%	1/4W		
R507	1-215-888-00	METAL OXIDE	220	5%	2W	F	
R508	1-216-371-00	METAL OXIDE	1.5	5%	2W	F	
R509	1-249-443-11	CARBON	0.47	5%	1/4W	F	
R510	1-249-443-11	CARBON	0.47	5%	1/4W	F	

D

The components identified by shading and marked **A** are critical for safety.  
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R517	1-215-427-00	METAL	1.8K 1% 1/4W	R805	1-249-425-11	CARBON	4.7K 5% 1/4W
R518	1-215-427-00	METAL	1.8K 1% 1/4W	R812	1-249-421-11	CARBON	2.2K 5% 1/4W
R520	1-215-457-00	METAL	33K 1% 1/4W	R813	1-215-867-00	METAL OXIDE	470 5% 1W F
R521	1-215-461-00	METAL	47K 1% 1/4W	R814	1-249-411-11	CARBON	330 5% 1/4W
R522	1-249-433-11	CARBON	22K 5% 1/4W	R816	1-216-481-11	METAL OXIDE	1.2K 5% 3W F
R523	1-249-433-11	CARBON	22K 5% 1/4W	R817	1-216-481-11	METAL OXIDE	1.2K 5% 3W F
R524	1-249-425-11	CARBON	4.7K 5% 1/4W	R818	1-215-882-00	METAL OXIDE	22 5% 2W F
R525	1-249-425-11	CARBON	4.7K 5% 1/4W	R819	1-216-345-11	METAL OXIDE	0.47 5% 1W F
R526	1-249-421-11	CARBON	2.2K 5% 1/4W	R820	1-249-403-11	CARBON	68 5% 1/4W
R528	1-259-880-11	CARBON	2.2M 5% 1/4W	R821	1-215-909-11	METAL OXIDE	47 5% 3W F
R529	1-247-895-00	CARBON	470K 5% 1/4W	R822	1-215-868-00	METAL OXIDE	680 5% 1W F
R600	1-216-490-11	METAL OXIDE	39K 5% 3W F	R824	1-249-420-11	CARBON	1.8K 5% 1/4W
R601	1-249-417-11	CARBON	1K 5% 1/4W	R826	1-247-752-11	CARBON	1K 5% 1/2W
R603	1-215-875-11	METAL OXIDE	10K 5% 1W F	R827	1-249-425-11	CARBON	4.7K 5% 1/4W
R604	1-249-420-11	CARBON	1.8K 5% 1/4W	R828	1-249-430-11	CARBON	12K 5% 1/4W
R605	1-216-362-11	METAL OXIDE	0.27 5% 2W F	R829	1-249-493-11	CARBON	56K 5% 1/2W
R607	1-216-421-71	METAL OXIDE	12 5% 1W F	R830	1-217-778-11	FUSIBLE	1K 5% 1W F
R608	1-216-365-00	METAL OXIDE	0.47 5% 2W F	R833	1-249-421-11	CARBON	2.2K 5% 1/4W F
R610	1-215-427-00	METAL	1.8K 1% 1/4W	R836	1-249-439-11	CARBON	68K 5% 1/4W
R611	1-215-859-00	METAL OXIDE	22 5% 1W F	R837	1-249-431-11	CARBON	15K 5% 1/4W
R612	1-249-428-11	CARBON	8.2K 5% 1/4W	R840	1-247-807-31	CARBON	100 5% 1/4W
R613	1-249-417-11	CARBON	1K 5% 1/4W	R841	1-249-418-11	CARBON	1.2K 5% 1/4W
R614	1-215-877-11	METAL OXIDE	22K 5% 1W F	R842	1-249-441-11	CARBON	100K 5% 1/4W
R615	1-249-435-11	CARBON	33K 5% 1/4W	R843	1-247-893-11	CARBON	390K 5% 1/4W
R616	1-215-479-00	METAL	270K 1% 1/4W	R846	1-249-441-11	CARBON	100K 5% 1/4W
R617	1-215-901-00	METAL OXIDE	33K 5% 2W F	R847	1-247-891-00	CARBON	330K 5% 1/4W
R618	1-249-433-11	CARBON	22K 5% 1/4W	R848	1-247-887-00	CARBON	220K 5% 1/4W
R619	1-216-425-11	METAL OXIDE	56 5% 1W F	R849	1-249-429-11	CARBON	10K 5% 1/4W
R620	1-247-895-00	CARBON	470K 5% 1/4W	R850	1-249-425-11	CARBON	4.7K 5% 1/4W
R621	1-216-425-11	METAL OXIDE	56 5% 1W F	R851	1-215-898-11	METAL OXIDE	10K 5% 2W F
R622	1-249-437-11	CARBON	47K 5% 1/4W	R852	1-249-432-11	CARBON	18K 5% 1/4W
R623	1-249-429-11	CARBON	10K 5% 1/4W	R901	1-202-539-00	SOLID	39 10% 1/2W
R624	1-249-405-11	CARBON	100 5% 1/4W F	R902	1-202-539-00	SOLID	39 10% 1/2W
R625	1-249-434-11	CARBON	27K 5% 1/4W	R907	1-247-804-11	CARBON	75 5% 1/4W
R626	1-249-430-11	CARBON	12K 5% 1/4W	R916	1-249-397-11	CARBON	22 5% 1/4W
R628	1-249-415-11	CARBON	680 5% 1/4W F	R917	1-249-397-11	CARBON	22 5% 1/4W
R629	▲ 1-244-945-91	CARBON	1M 5% 1/2W	R1200	1-249-425-11	CARBON	4.7K 5% 1/4W
R630	▲ 1-218-265-11	METAL	8.2M 5% 1W	R1201	1-249-434-11	CARBON	27K 5% 1/4W
R631	▲ 1-205-949-11	WIREWOUND	1.8 5% 10W	R1202	1-249-393-11	CARBON	10 5% 1/4W F
R632	1-247-807-31	CARBON	100 5% 1/4W	R1203	1-249-421-11	CARBON	2.2K 5% 1/4W
R633	1-247-807-31	CARBON	100 5% 1/4W	R1204	1-249-421-11	CARBON	2.2K 5% 1/4W
R634	1-249-397-11	CARBON	22 5% 1/4W F	R1205	1-249-428-11	CARBON	8.2K 5% 1/4W
R635	1-249-437-11	CARBON	47K 5% 1/4W	R1206	1-249-428-11	CARBON	8.2K 5% 1/4W
R636	1-249-417-11	CARBON	1K 5% 1/4W	R1207	▲ 1-249-417-11	CARBON	1K 5% 1/4W
R637	1-249-409-11	CARBON	220 5% 1/4W	R1208	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
R638	1-249-433-11	CARBON	22K 5% 1/4W	R1209	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
R639	1-215-427-00	METAL	1.8K 1% 1/4W	R1210	▲ 1-249-417-11	CARBON	1K 5% 1/4W
R640	1-216-381-11	METAL OXIDE	0.22 5% 3W F	R1211	1-249-424-11	CARBON	3.9K 5% 1/4W
R641	1-216-381-11	METAL OXIDE	0.22 5% 3W F	R1212	1-249-424-11	CARBON	3.9K 5% 1/4W
R642	▲ 1-205-949-11	WIREWOUND	1.8 5% 10W	R1213	1-249-421-11	CARBON	2.2K 5% 1/4W
R644	1-247-807-31	CARBON	100 5% 1/4W	R1216	1-249-413-11	CARBON	470 5% 1/4W
R645	1-249-422-11	CARBON	2.7K 5% 1/4W	R1217	1-249-425-11	CARBON	4.7K 5% 1/4W
R646	1-249-377-11	CARBON	0.47 5% 1/4W F	< VARIABLE RESISTOR >			
R647	1-202-933-61	FUSIBLE	0.1 10% 1/2W F	RV301	1-238-552-11	RES, ADJ, CARBON	470K
R648	1-216-397-11	METAL OXIDE	4.7 5% 3W F	< RELAY >			
R800	1-249-421-11	CARBON	2.2K 5% 1/4W	RY600	▲ 1-515-720-31	RELAY	
R801	1-249-429-11	CARBON	10K 5% 1/4W				
R802	1-249-431-11	CARBON	15K 5% 1/4W				
R803	1-249-423-11	CARBON	3.3K 5% 1/4W				
R804	1-249-430-11	CARBON	12K 5% 1/4W				

D

VM

H1

The components identified by shading and marked \* are critical for safety.  
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK		
< SPARK GAP >									
SG801	1-519-422-11	GAP, SPARK		Q1702	8-729-173-38	TRANSISTOR 2SA733-K			
< TRANSFORMER >									
LF600	1-421-776-11	LFT		Q1703	8-729-017-05	TRANSISTOR 2SA1837			
LF601	1-421-776-11	LFT		Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE			
T601	1-426-805-11	TRANSFORMER		Q1705	8-729-017-06	TRANSISTOR 2SC4793			
T800	1-424-545-11	TRANSFORMER, FERRITE (PMT)		Q1706	8-729-119-78	TRANSISTOR 2SC2785-HFE			
T803	1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)		Q1707	8-729-140-96	TRANSISTOR 2SD774-34			
T804	1-437-090-00	HDT		Q1708	8-729-901-59	TRANSISTOR BF199			
< THERMISTOR >									
THP600	1-809-827-11	THERMISTOR, POSITIVE		Q1709	8-729-255-12	TRANSISTOR 2SC2551-0			
< RESISTOR >									
R1701	1-247-807-31	CARBON	100 5% 1/4W						
R1702	1-249-420-11	CARBON	1.8K 5% 1/4W						
R1703	1-247-807-31	CARBON	100 5% 1/4W						
R1704	1-249-420-11	CARBON	1.8K 5% 1/4W						
R1705	1-247-736-11	CARBON	56 5% 1/2W F						
R1706	1-249-414-11	CARBON	560 5% 1/4W F						
R1707	1-249-412-11	CARBON	390 5% 1/4W						
R1709	1-249-416-11	CARBON	820 5% 1/4W						
R1710	1-249-385-11	CARBON	2.2 5% 1/4W F						
R1711	1-249-432-11	CARBON	18K 5% 1/4W						
*A-1644-052-A VM BOARD, COMPLETE									
*****									
*4-368-683-21 SPRING, TRANSISTOR									
< CAPACITOR >									
C1701	1-124-119-00	ELECT	330MF 20% 16V	R1712	1-249-435-11	CARBON	33K 5% 1/4W		
C1702	1-101-880-00	CERAMIC	47PF 5% 50V	R1713	1-249-438-11	CARBON	56K 5% 1/4W		
C1703	1-102-115-00	CERAMIC	560PF 10% 50V	R1714	1-249-429-11	CARBON	10K 5% 1/4W		
C1704	1-161-830-00	CERAMIC	0.0047MF 500V	R1715	1-216-476-11	METAL OXIDE	180 5% 3W F		
C1705	1-124-120-11	ELECT	220MF 20% 16V	R1716	1-249-417-11	CARBON	1K 5% -1/4W F		
C1706	1-123-935-00	ELECT	33MF 20% 160V	R1721	1-249-414-11	CARBON	560 5% 1/4W		
C1707	1-124-907-11	ELECT	10MF 20% 50V	R1722	1-249-385-11	CARBON	2.2 5% 1/4W F		
C1708	1-101-006-00	CERAMIC	0.047MF 50V	R1723	1-249-429-11	CARBON	10K 5% 1/4W		
C1709	1-108-704-11	MYLAR	0.1MF 10% 200V	R1724	1-249-436-11	CARBON	39K 5% 1/4W		
C1710	1-136-207-11	FILM	0.047MF 10% 250V	R1725	1-249-417-11	CARBON	1K 5% 1/4W		
C1711	1-162-318-11	CERAMIC	0.001MF 10% 500V	R1726	1-249-411-11	CARBON	330 5% 1/4W		
C1712	1-124-799-11	ELECT	2.2MF 20% 160V	R1727	1-249-402-11	CARBON	56 5% 1/4W F		
C1713	1-162-318-11	CERAMIC	0.001MF 10% 500V	R1729	1-216-451-11	METAL OXIDE	120 5% 2W F		
C1714	1-136-207-11	FILM	0.047MF 10% 250V	R1731	1-249-420-11	CARBON	1.8K 5% 1/4W		
C1716	1-124-907-11	ELECT	10MF 20% 50V	R1732	1-249-426-11	CARBON	5.6K 5% 1/4W		
C1718	1-124-120-11	ELECT	220MF 20% 16V	R1734	1-249-419-11	CARBON	1.5K 5% 1/4W		
C1719	1-124-927-11	ELECT	4.7MF 20% 50V	*****					
< CONNECTOR >									
CN1819	*1-568-882-51	PIN, CONNECTOR 7P		*1-652-275-11 H1 BOARD					
< DIODE >									
D1701	8-719-901-33	DIODE 1SS133		< CAPACITOR >					
D1702	8-719-901-33	DIODE 1SS133		C900	1-101-810-00	CERAMIC	100PF 5% 50V		
D1703	8-719-901-33	DIODE 1SS133		C901	1-101-810-00	CERAMIC	100PF 5% 50V		
D1704	8-719-982-37	DIODE MTZJ-39C		C902	1-137-372-11	FILM	0.022MF 5% 50V		
D1705	8-719-982-37	DIODE MTZJ-39C		C903	1-137-372-11	FILM	0.022MF 5% 50V		
D1706	8-719-901-33	DIODE 1SS133		C907	1-124-903-11	ELECT	1MF 20% 50V		
D1707	8-719-901-33	DIODE 1SS133		< CONNECTOR >					
< COIL >									
L1701	1-408-417-00	INDUCTOR	47UH	CN900	1-568-678-21	TERMINAL BLOCK, S 3P			
L1702	1-408-418-00	INDUCTOR	56UH	CN906	*1-564-516-11	PLUG, CONNECTOR 13P			
< TRANSISTOR >									
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE		< SOCKET >					
				J900	1-764-606-11	JACK			

The components identified by shading and marked \* are critical for safety.  
Replace only with the part number specified.

**H1**    **H2**    **H3**

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< COIL >							
L900	1-408-409-00	INDUCTOR	10UH				MISCELLANEOUS
L901	1-408-409-00	INDUCTOR	10UH				*****
L902	1-408-409-00	INDUCTOR	10UH				
L903	1-408-409-00	INDUCTOR	10UH				
< RESISTOR >							
R905	1-247-804-11	CARBON	75	5%	1/4W		
R906	1-247-804-11	CARBON	75	5%	1/4W		
R909	1-249-437-11	CARBON	47K	5%	1/4W		
R910	1-249-437-11	CARBON	47K	5%	1/4W		
R915	1-249-397-11	CARBON	22	5%	1/4W		
*****							
*1-652-269-11 H2 BOARD							
*****							
< CAPACITOR >							
C904	1-124-910-11	ELECT	47MF	20%	50V		
C905	1-124-907-11	ELECT	10MF	20%	50V		
< CONNECTOR >							
CN907	*1-568-881-51	PIN, CONNECTOR 6P					
< DIODE >							
D901	8-719-030-11	DIODE SLA-570KT3F					
	4-202-707-01	HOLDER, LED (D901)					
< IC >							
IC900	8-741-790-11	IC SBX1790-11					
< RESISTOR >							
R900	1-249-409-11	CARBON	220	5%	1/4W		
R908	1-249-401-11	CARBON	47	5%	1/4W		
*****							
*1-652-270-11 H3 BOARD							
*****							
< CAPACITOR >							
CN908	*1-564-506-11	PLUG, CONNECTOR 3P					
CN908	*1-568-878-51	PIN, CONNECTOR 3P					
< RESISTOR >							
R911	1-249-423-11	CARBON	3.3K	5%	1/4W		
R912	1-249-429-11	CARBON	10K	5%	1/4W		
R913	1-249-423-11	CARBON	3.3K	5%	1/4W		
R914	1-249-429-11	CARBON	10K	5%	1/4W		
< SWITCH >							
S900	1-692-979-11	SWITCH, TACTILE					
S901	1-692-979-11	SWITCH, TACTILE					
S902	1-692-979-11	SWITCH, TACTILE					
*****							
ACCESORIES AND PACKING MATERIALS							
*****							
	4-202-767-41	MANUAL, INSTRUCTION (KV-C2981A)					
	4-202-767-51	MANUAL, INSTRUCTION (KV-C2980B)					
	4-202-767-91	MANUAL, INSTRUCTION (KV-C2981D)					
	4-202-767-71	MANUAL, INSTRUCTION (KV-C2983E)					
	*4-039-906-01	BAG, PROTECTION					
	*4-202-006-01	CUSHION (UPPER) (ASSY)					
	*4-202-009-01	CUSHION (LOWER) (ASSY)					
	*4-202-005-01	INDIVIDUAL CARTON					
REMOTE COMMANDER							
*****							
	1-467-706-11	REMOTE COMMANDER (RM-833)					
*****							